# Hanford Federal Facility Agreement and Consent Order

Fifth and Sixth Amendment, February 1996

by

Washington State Department of Ecology

United States
Environmental Protection Agency

United States Department of Energy

89-10 REV 4



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# Hanford Federal Facility Agreement and Consent Order

by

Washington State Department of Ecology

United States
Environmental Protection Agency

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Department of Energy

# May 1989

As Amended, September 1990

September 1991

August 1992

January 1994

July 1995

February 1996

89-10 REV 4

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# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 10 AND THE STATE OF WASHINGTON DEPARTMENT OF ECOLOGY

IN THE MATTER OF:	)	
The U.S. Department of Energy, Richland Operations Office, Richland, Washington	)	HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER
Respondent	)	EPA Docket Number: 1089-03-04-120 Ecology Docket Number: 89-54

Based on the information available to the Parties on the effective date of this HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER ("Agreement"), and without trial or adjudication of any issues of fact or law, the Parties agree as follows:

This Agreement is divided into five parts: Part One contains introductory provisions which apply to Parts Two, Three, Four, and Five: Part Two contains provisions governing hazardous waste treatment, storage and disposal (TSD), hazardous waste facility permitting, closure and post-closure activities; Part Three contains provisions governing remedial and corrective action activities; Part Four contains provisions which delineate in part the respective roles and interrelationships between EPA and Ecology, and between CERCLA and RCRA on the Hanford Site; and Part Five contains common provisions which apply to Parts Two, Three, and Four.

CERCLA response actions and corrective actions under HSWA, before and after State authorization, shall be governed by Part Three of this Agreement.

RCRA compliance, and TSD permitting, closure, and post closure care (except HSWA corrective action) shall be governed by Part Two of this Agreement.

This Agreement also consists of Attachment 1, a letter dated
February 26, 1989 from the Department of Justice to the Department of
Ecology, Attachment 2, the Action Plan, and Attachment 3, the Mutual
Cooperation Funding Agreement between the Department of Ecology and the
Department of Energy. In the event of any inconsistency between this
Agreement and the attachments to this Agreement, this Agreement shall govern
unless and until duly modified pursuant to Article XXXIX of this Agreement.

The Action Plan contains plans, procedures and implementing schedules. The Action Plan is an integral and enforceable part of this Agreement.

#### PART ONE

#### INTRODUCTION

#### ARTICLE I. JURISDICTION

- 1. The U.S. Environmental Protection Agency (EPA), Region 10, enters into this Agreement pursuant to Section 120(e) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. Section 9620(e), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), Pub. L. 99-499 (hereinafter jointly referred to as CERCLA), and Sections 6001, 3008(h), and 3004(u) and (v) of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Sections 6961, 6928(h), 6924(u) and (v), as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA), Pub. L. 98-616 (hereinafter jointly referred to as RCRA) and Executive Order 12580.
- Recovery Act, 42 U.S.C. Section 6926, EPA may authorize states to administer and enforce a state hazardous waste management program, in lieu of the federal hazardous waste management program. The State of Washington has received authorization from EPA to administer and enforce such a program within the State of Washington. The requirements of the federally authorized state program are equivalent to the requirements of the federal program set forth in Subtitle C of RCRA and its implementing regulations (excluding those portions of the federal program imposed pursuant to HSWA for which the State of Washington has not yet been authorized). The Department of Ecology (Ecology) is the state agency designated by RCW 70.105.130 to implement and enforce the provisions of the Resource Conservation and Recovery Act as amended.

- 3. The State of Washington, Department of Ecology (Ecology) enters into this Agreement pursuant to CERCLA, RCRA, Washington Hazardous Waste Management Act, Chapter 70.105 RCW, and pursuant to Ecology's authority to issue regulatory orders under RCW 70.105.095.
- 4. The Parties agree that the generation, treatment, storage, and disposal of hazardous waste is regulated by the State of Washington,
  Department of Ecology pursuant to Ch. 70.105 RCW, the State Hazardous Waste
  Management Act (HWMA), and regulations governing the management of hazardous wastes are contained at Ch. 173-303 WAC, and finally that pursuant to
  Section 6001 of RCRA, 42 U.S.C. Sec. 6961, the United States Department of Energy (DOE), as a federal agency, must comply with the procedural and substantive requirements of such state law. DOE is a "person" as defined at RCW 70.105.010(7).
- 5. The U.S. Department of Energy (DOE) enters into this Agreement pursuant to Section 120(e) of CERCLA, Sections 6001, 3008(h), and 3004(u) and (v) of RCRA, Executive Orders 12580 (January 1987) and 12088 (Oct. 1978), and the Atomic Energy Act of 1954, as amended, 42 U.S.C. Section 2011 et seq. DOE agrees that it is bound by this Agreement and that its terms may be enforced against DOE pursuant to the terms of this Agreement or as otherwise provided by law. As stated in Section 1006 of RCRA, nothing in this Agreement shall be construed to require DOE to take any action pursuant to RCRA which is inconsistent with the requirements of the Atomic Energy Act of 1954, as amended. In the event DOE asserts that it cannot comply with any provision of this Agreement based on an alleged inconsistency between the requirements of this Agreement and the Atomic Energy Act of 1954, as amended, it shall provide the basis for the inconsistency assertion in writing. In the event Ecology

disagrees with the assertions by DOE, Ecology reserves the right to seek judicial review, or take any other action provided by law in case of any such alleged inconsistency.

The Parties are entering into this Agreement in anticipation that the Hanford Site will be placed on the National Priorities List (NPL). 40 CFR Part 300. The Hanford Site has been listed by EPA on the federal agency hazardous waste compliance docket under CERCLA Section 120, 52 Federal Register 4280 (Feb. 12, 1988). Four subareas of the Hanford Site have been proposed by EPA for addition to the NPL, 53 Fed. Reg. 23988 (June 24, 1988). [Note: The four areas of the Hanford Site were officially listed on the NPL on November 3, 1989 (Federal Register 41015, October 4, 1989)]. When the Hanford Site, or subareas of the Site, is placed on the NPL, Parts One, Three, Four, and Five of this Agreement shall also serve as the Interagency Agreement required by CERCLA Section 120(e). Parts One, Two, Four, and Five of this Agreement shall serve as the RCRA provisions governing compliance, permitting, closure and post-closure care of treatment, storage or disposal (TSD) Units. The Action Plan, at Appendix B, lists those TSD Groups or Units regulated by Ch. 70.105 RCW. As the categorization effort continues, TSD Units may be added to this list. DOE agrees that those TSD Units listed in Appendix B of the Action Plan, and any additional TSD Units which are identified as TSD Units in the future are subject to the regulatory framework of Ch. 70.105 RCW pursuant to RCRA Section 6001. Ecology's authority over these TSD Units shall not be abrogated or affected by the nomination or ultimate inclusion of the Hanford Site on the NPL and such Units shall be regulated in accordance

with this Agreement; provided, however, that with respect to conflicts between EPA and Ecology, Article XXVIII (RCRA/CERCLA Reservation of Rights) shall be controlling.

7. On April 13, 1993, the District Court for the Eastern District of Washington issued an Order Granting in Part and Denying in Part Motions to Dismiss claims of the plaintiffs in Heart of America Northwest v. Westinghouse Hanford Company, No. CY-92-144-AAM. The court concluded in its opinion that this Agreement embodies an integrated response action under Sections 120 and 104 of CERCLA, and that plaintiffs' claims consequently were barred by Section 113(h) of CERCLA. Plaintiffs did not seek to enforce this Agreement, but instead sought to impose requirements that were not part of this Agreement. Nothing in the court's opinion affects the enforceability of this Agreement. All parties reaffirm that this Agreement is enforceable in accordance with all its terms, reservations and applicable law.

#### ARTICLE II. PARTIES

- 8. The Parties to this Agreement are EPA, Ecology, and DOE.
- 9. DOE shall provide a copy of this Agreement and relevant attachments to each of its prime contractors. A copy of this Agreement shall be made available to all other contractors and subcontractors retained to perform work under this Agreement. DOE shall provide notice of this Agreement to any successor in interest prior to any transfer of ownership or operation.
- of work of each of its prime contractors and their subcontractors to be used in carrying out the terms of this Agreement in advance of their involvement in such work. Upon request, DOE shall also provide the identity and work scope of any other contractors and subcontractors performing work under this

- Agreement. DOE shall take all necessary measures to assure that its contractors, subcontractors and consultants performing work under this Agreement act in a manner consistent with the terms of this Agreement.
- 11. DOE agrees to undertake all actions required by the terms and conditions of this Agreement and not to contest state or EPA jurisdiction to execute this Agreement and enforce its requirements as provided herein.
- 12. This Article II shall not be construed as a promise to indemnify any person.
- 13. DOE remains obligated by this Agreement regardless of whether it carries out the terms through agents, contractors, and/or consultants.

  Such agents, contractors, and/or consultants shall be required to comply with the terms of this Agreement, but the Agreement shall be binding and enforceable only against the Parties to this Agreement.

### ARTICLE III. PURPOSE

- 14. The general purposes of this Agreement are to:
- A. Ensure that the environmental impacts associated with past and present activities at the Hanford Site are thoroughly investigated and appropriate response action taken as necessary to protect the public health, welfare and the environment;
- B. Provide a framework for permitting TSD Units, promote an orderly, effective investigation and cleanup of contamination at the Hanford Site, and avoid litigation between the Parties;
- C. Ensure compliance with RCRA and the Washington Hazardous Waste Management Act (HWMA), Ch. 70.105 RCW, for TSD Units including requirements covering permitting, compliance, closure, and post-closure care.

- D. Establish a procedural framework and schedule for developing, prioritizing, implementing and monitoring appropriate response actions at the Hanford Site in accordance with CERCLA, the National Contingency Plan (NCP), 40 CFR Part 300, Superfund guidance and policy, RCRA, and RCRA guidance and policy;
- E. Facilitate cooperation, exchange of information and the coordinated participation of the Parties in such actions; and
  - F. Minimize the duplication of analysis and documentation.
  - 15. Specifically, the purposes of this Agreement are to:
- A. Identify TSD Units which require permits; establish schedules to achieve compliance with interim and final status requirements and to complete DOE's Part B permit application for such Units in accordance with the Action Plan; identify TSD Units which will undergo closure; close such Units in accordance with applicable laws and regulations; require post-closure care where necessary; and coordinate closure with any inter-connected remedial action at the Hanford Site.
- B. Identify Interim Action (IA) alternatives which are appropriate at the Hanford Site prior to the implementation of final corrective and remedial actions under RCRA and CERCLA. IA alternatives shall be identified and proposed to the Parties as early as possible and prior to formal proposal, in accordance with the Action Plan. This process is designed to promote cooperation among the Parties in promptly identifying IA alternatives.
- C. Establish requirements for the performance of investigations to determine the nature and extent of any threat to the public health or welfare or the environment caused by any release and threatened release of hazardous substances, pollutants or contaminants at Hanford and to establish requirements for the performance of studies for the Hanford Site to identify,

evaluate, and select alternatives for the appropriate action(s) to prevent, mitigate, or abate the release or threatened release of hazardous substances, pollutants or contaminants at the Hanford Site in accordance with CERCLA and HSWA.

- D. Identify the nature, objective and schedule of response actions to be taken at the Hanford Site. Response actions at Hanford shall attain that degree of cleanup of hazardous substances, pollutants or contaminants mandated by CERCLA (including applicable or relevant and appropriate state and federal requirements for remedial actions in accordance with Section 121 of CERCLA, 42 U.S.C. Sec. 9621), and HSWA.
- E. Implement the selected interim and final remedial actions in accordance with CERCLA, and selected corrective actions in accordance with RCRA.

# ARTICLE IV. STATUTORY COMPLIANCE AND RCRA/CERCLA INTEGRATION AND COORDINATION

as either TSD units subject to Chapter 70.105 RCW or past-practice units subject to either CERCLA or the corrective action provisions of RCRA. Operable units have been formed which group multiple units for action in accordance with the Action Plan. Some units may be subject to and addressed by both Chapter 70.105 RCW and CERCLA and/or the corrective action requirements of RCRA. Part Two of this Agreement sets forth DOE's obligation to obtain TSD permits, to close TSD Units, and otherwise comply with applicable RCRA requirements. Part Three of this Agreement sets forth DOE's obligations to satisfy CERCLA and HSWA corrective action.

- 17. In this comprehensive Agreement, the Parties intend to integrate DOE's CERCLA response obligations and RCRA corrective action obligations which relate to the release(s) of hazardous substances, hazardous wastes, pollutants and contaminants covered by this Agreement. Therefore, the Parties intend that activities covered by Part Three of this Agreement will achieve compliance with CERCLA, 42 U.S.C. Section 9601 et seq.; will satisfy the corrective action requirements of the HWMA, Sections 3004(u) and (v) of RCRA, 42 U.S.C. Section 6924(u) and (v), for a RCRA permit, and Section 3008(h), 42 U.S.C. Section 6928(h); and will meet or exceed all applicable or relevant and appropriate federal and state requirements to the extent required by Section 121 of CERCLA, 42 U.S.C. Section 9621. The Parties agree that with respect to releases covered by this Agreement, RCRA, and RCW Chapters 70.105 and the Model Toxics Control Act (Initiative 97) as codified beginning March 1, 1989, shall be incorporated where appropriate as "applicable or relevant and appropriate requirements" pursuant to Section 121 of CERCLA.
- most efficient means for addressing groundwater contamination plumes originating from both TSD and past-practice units. However, in order to ensure that TSD units at Hanford are brought into compliance with RCRA and state hazardous waste regulations, Ecology intends, subject to Part Four of this Agreement, that remedial actions that address TSD groundwater contamination, excluding situations where there is an imminent threat to the public health or environment, will meet or exceed the substantive requirements of RCRA.
- 19. Based on the foregoing, the Parties intend that any remedial or corrective action selected, implemented and completed under Part Three of this

Agreement shall be protective of human health and the environment such that remediation of releases covered by this Agreement shall obviate the need for further remedial or corrective action. The Parties intend that such actions will address all aspects of contamination at units covered by the Action Plan so that no further action will be required under federal and state law. However, the Parties recognize and agree that remediation of groundwater contamination from TSD units at the Hanford Site may be managed either under Part Three of this Agreement, or under Part Two of this Agreement, in accordance with the Action Plan. Ecology reserves the right to enforce timely cleanup of TSD associated groundwater contamination as provided in Article XLVI (Reservation of Rights).

20. Ecology will administer the HWMA, in accordance with this Agreement, including those provisions which have not yet been authorized under RCRA Section 3006. Ecology has received authorization from EPA to implement the corrective action provisions of RCRA pursuant to Section 3006 of RCRA, and shall administer and enforce such provisions in accordance with this Agreement. Ecology may enforce the RCRA corrective action requirements of the Agreement pursuant to Article X (Enforceability), and any disputes with DOE involving such corrective action requirements shall be resolved in accordance with Article VIII (Resolution of Disputes). Disputes arising under Part Two of this Agreement including provisions of the HWMA for which the State is not authorized shall be resolved in accordance with Article VIII (Resolution of Disputes). Any disputes between EPA and Ecology concerning Subtitle C RCRA requirements will be resolved in accordance with Part Four. EPA and Ecology agree that when permits are issued to DOE for hazardous waste management activities pursuant to Part Two of this Agreement, requirements relating to remedial action for hazardous waste management units under Part Three of this

Agreement shall be the RCRA corrective action requirements for those units, whether that permit is administered by EPA or Ecology. EPA and Ecology shall reference and incorporate the appropriate provisions, including schedules (and the provision for extension of such schedules) of this Agreement into such permits.

21. Nothing in this Agreement shall alter the DOE's authority with respect to removal actions conducted pursuant to Section 104 of CERCLA, 42 U.S.C. Sec. 9604, as provided by Executive Order 12580.

#### ARTICLE V. DEFINITIONS

- 22. Except as noted below or otherwise explicitly stated, the appropriate definitions provided in CERCLA, RCRA, the NCP, Ch. 70.105 RCW and Ch. 173-303 WAC shall control the meaning of terms used in this Agreement. In addition:
- A. "Action Plan" means the implementing document for this Agreement, which is set forth as Attachment 2 and by this reference incorporated into this Agreement. The term includes all amendments to that document, which the Parties anticipate will be made periodically.
- B. "Additional Work" means any new or different work outside the originally agreed upon scope of work, which is determined pursuant to Article XXX (Additional Work).
- C. "Agreement" means this document and includes all attachments, addenda and modifications to this document, which are required to be written and to be incorporated into or appended to this document.
- D. "Applicable or Relevant and Appropriate Requirements" (ARAR) means any standard, requirement, criteria or limitation as provided in Section 121(d)(2) of CERCLA.

- E. "Article" means a subdivision of this Agreement which is identified by a Roman numeral.
- F. "Authorized Representative" is any person, including a contractor, who is specifically designated by a Party to have a defined capacity, including an advisory capacity.
- G. "Days" mean calendar days, unless otherwise specified. Any submittal, written notice of position or written statement of dispute that would be due under the terms of this Agreement on a Saturday, Sunday or federal or state holiday shall be due on the following business day.
- H. "Dispute Resolution" means the process for resolving disputes that arise under this Agreement.
- I. "DOE" or "US DOE" means the United States Department of Energy, its employees and Authorized Representatives.
- J. "Ecology" means the State of Washington Department of Ecology, its employees and Authorized Representatives.
- K. "EPA" means the United States Environmental Protection Agency, its employees and Authorized Representatives.
- L. "Hanford," "Hanford Site," or "Site" means the approximately 560 square miles in Southeastern Washington State (excluding leased land, State owned lands, and lands owned by the Bonneville Power Administration) which is owned by the United States and which is commonly known as the Hanford Reservation (see map at Figure 7-1 in the Action Plan). This definition is not intended to limit CERCLA or RCRA authority regarding hazardous wastes, substances, pollutants or contaminants which have migrated off the Hanford Site.
  - M. "Hazardous Substance" is defined in CERCLA Section 101(14).

- N. "Hazardous Waste" are those wastes included in the definitions at RCRA Section 1004(5) and RCW 70.105.010(15).
- O. "HWMA" shall mean the Hazardous Waste Management Act as codified at Ch. 70.105 RCW, and its implementing regulation at Ch. 173-303 Washington Administrative Code.
- P. "HSWA" shall mean the Hazardous and Solid Waste Amendments of 1984, P.L. 98-616.
- Q. "HSWA Corrective Action" means those corrective action requirements set forth in Sections 3004(u) and (v) and 3008(h) of RCRA; and, state equivalents.
- R. "lead regulatory agency" is that agency (EPA or Ecology) which is assigned regulatory oversight responsibility with respect to actions under this Agreement regarding a particular Operable Unit, TSD Unit/Group or Milestone pursuant to Section 5.6 of the Action Plan. The designation of a lead regulatory agency shall not change the jurisdictional authorities of the Parties.
- S. "Radioactive Mixed Waste" or "Mixed Waste" are wastes that contains both hazardous waste subject to RCRA, as amended, and radioactive waste subject to the Atomic Energy Act of 1954, as amended.
- T. "Operable Unit" means a discrete portion of the Hanford Site, as identified in Section 3.0 of the Action Plan.
- U. "Paragraph" means a numbered paragraph (including subparagraphs) of this Agreement.
  - V. "Part" means one of the five major divisions of this Agreement.
- W. "RCRA" means the Resource Conservation and Recovery Act,
  42 U.S.C. Section 6901 et seq., as amended. For purposes of this Agreement,
  "RCRA" also includes HWMA, Ch. 70.105 RCW.

- X. "RCRA Permit" means a permit under RCRA and/or HWMA for treatment, storage or disposal of hazardous waste.
- Y. "Timetables and deadlines" means major and interim milestones and all work and actions (not including target dates) as delineated in the Action Plan and supporting work plans (including performance of actions established pursuant to the Dispute Resolution procedures set forth in this Agreement).
- Z. "TSD Group" means a grouping of TSD (treatment, storage or disposal) Units for the purpose of preparing and submitting a permit application and/or closure plan pursuant to the requirements under RCRA, as determined in the Action Plan.
- AA. "TSD Unit" means a treatment, storage or disposal Unit which is required to be permitted and/or closed pursuant to RCRA requirements as determined in the Action Plan.
- BB. "Waste Management Unit" means an individual location on the Hanford Site where waste has or may have been placed, either planned or unplanned, as identified in the Action Plan.

#### PART TWO

### PERMITTING/CLOSURE OF TSD UNITS/GROUPS

#### ARTICLE VI. FINDINGS AND DETERMINATIONS

- 23. The following paragraphs of this Article constitute a summary of the facts upon which EPA and Ecology are proceeding for purposes of Part Two of this Agreement. None of the facts related herein shall be considered admissions by any Party. This Article contains findings by EPA and Ecology, and shall not be used by any person related or unrelated to this Agreement for purposes other than determining the basis of this Agreement.
- A. In and/or before 1943, the United States acquired approximately 560 square miles of land, now known as the Hanford Reservation. The DOE and its predecessors have operated Hanford continuously since 1943, mainly for the production of special nuclear materials for the national defense.
- B. On or about August 14, 1980, DOE submitted a Notice of Hazardous Waste Activity to EPA pursuant to Section 3010 of RCRA, identifying DOE as a generator, transporter and owner and operator of a TSD Facility. On or about November 1980, DOE submitted Part A of its permit application to EPA qualifying for interim status pursuant to Section 3005 of RCRA. DOE's Part A has been modified by DOE and submitted to EPA and/or Ecology on several occasions. A revised Part A application submitted on May 20, 1988, related to activities involving Mixed Waste.

- C. DOE operates and has operated since November 19, 1980, a hazardous waste management facility engaged in the treatment, storage, and disposal of Hazardous Wastes which are subject to regulation under RCRA and/or the Washington State Hazardous Waste Management Act, Ch. 70.105 RCW.
- D. Since the establishment of the Hanford Site in 1943, materials subsequently defined as Hazardous Substances, pollutants and contaminants by CERCLA, materials defined as Hazardous Waste and constituents by RCRA and/or Ch. 70.105 RCW, have been produced, and disposed of or released, at various locations at the Hanford Site, including TSD Units.
- 24. Based upon the Finding of Fact set forth in Paragraph 23, and the information available, and without admission by DOE, EPA and Ecology have determined the following:
- A. Pursuant to Sec. 6001 of RCRA, 42 U.S.C. Section 6961, DOE is subject to and must comply with RCRA and the Washington State Hazardous Waste Management Act, Ch. 70.105 RCW.
- B. The Hanford Site includes certain hazardous waste treatment, storage, and disposal Units authorized to operate under Section 3005(e) of RCRA, 42 U.S.C. Sec. 6925(e), and is subject to the permit requirements of Section 3005 of RCRA.
- C. Certain wastes and constituents at the Hanford Site are Hazardous Wastes or hazardous constituents as defined by Section 1004(5) of RCRA, 42 U.S.C. Sec. 6903(5), and 40 CFR Part 261. There are also Hazardous Wastes or hazardous constituents at the Hanford Site within the meaning of Ch. 70.105 RCW and WAC 173-303.
- D. The Hanford Site constitutes a facility within the meaning of Sections 3004 and 3005 of RCRA, 42 U.S.C. Secs. 6924 and 6925, and RCW 70.105.
  - E. The DOE is the owner of the Hanford Site.

25. The submittals, actions, schedules, and other elements of work required or imposed by this Agreement are reasonable and necessary to protect the public health and welfare and the environment.

#### ARTICLE VII. WORK

- 26. DOE agrees to perform the work described in this Article VII in accordance with the Action Plan. The Action Plan delineates the actions to be taken, schedules for such actions, and establishes the overall plan to conduct RCRA permitting and closures, and remedial or corrective action under CERCLA or RCRA. The Action Plan lists the Hanford TSD Units and TSD Groups which are subject to permitting and closure under this Agreement. Additional TSD Units may be listed as they are identified. Units listed in Appendix B of the Action Plan are subject to regulation under RCRA and Ch. 70.105 RCW. Ecology agrees to provide DOE with guidance and timely response to requests for guidance to assist DOE in the performance of its work under Part Two of this Agreement.
- specifically identified for permitting or closure by the Action Plan and shall submit permit applications in accordance with the Action Plan. EPA shall issue the HSWA provisions of such permits until such authority is delegated to Ecology pursuant to Section 3006 of RCRA. The lead regulatory agency shall review such permit applications in accordance with applicable law. The RCRA Permit, whether issued by Ecology and EPA, or Ecology alone after delegation of HSWA authority, shall reference the terms of this Agreement, and provide that compliance with this Agreement and corrective action permit conditions developed pursuant to this Agreement shall satisfy all substantive corrective action requirements of RCRA/HSWA.

- 28. DOE shall bring its facility into compliance with RCRA requirements specified in the Action Plan according to the schedule set forth therein. DOE shall comply with RCRA closure requirements under applicable regulations for those TSD Units specifically identified in the Action Plan. DOE shall implement closures in accordance with the Action Plan. Closures under this Article shall be regulated by Ecology under applicable law, but shall, as necessary, be coordinated with remedial action requirements of Part Three.
- 29. If Ecology determines that DOE is violating or has violated any RCRA requirement of this Agreement, and that formal enforcement action is appropriate, it will notify DOE in writing of the following: the facts of the violation(s); the regulation(s) or statute(s) violated; and Ecology's intention to take formal enforcement action; provided, however, that no such notice will necessarily be given for violations that Ecology considers egregious. The purpose of providing this notice is to allow DOE an opportunity to identify any facts it believes are erroneous. This notice shall be sent to the Director for DOE's Office of Environmental Assurance, Permits & Policy no later than seven (7) days before Ecology intends to take formal enforcement action. This notice (or the failure to give notice of violations that Ecology considers egregious) shall not be subject to Dispute Resolution under this Agreement. If Ecology takes formal enforcement action, the adequacy of the notice provided pursuant to this paragraph may not be challenged in any appeal. For purposes of this paragraph, taking "formal enforcement action" means issuing an order and/or penalty under chapter 70.105 RCW.

#### ARTICLE VIII. RESOLUTION OF DISPUTES

- 30. Except as otherwise specifically provided in this Agreement, if DOE objects to any Ecology disapproval, proposed modification, decision or determination made pursuant to Part Two of this Agreement (or Part Three requirements for which Ecology is the lead regulatory agency) it shall notify Ecology in writing of its objection within seven (7) days of receipt of such notice. Thereafter, DOE and Ecology shall make reasonable efforts to informally resolve disputes at the project manager level. These Dispute Resolution provisions shall not apply to Dangerous Waste permit actions which are otherwise subject to administrative or judicial appeal. These Dispute Resolution provisions shall not apply to enforcement actions which are otherwise subject to administrative or judicial appeal, except that these Dispute Resolution provisions shall apply in the event of the assessment of stipulated penalties under Article IX.
- within thirty (30) days of the receipt of DOE's objection, the dispute may be elevated to the Interagency Management Integration Team (IAMIT). Prior to the expiration of the thirty (30) day period DOE shall submit a written statement of dispute to the IAMIT thereby elevating the dispute to the IAMIT for resolution. This statement shall set forth the nature of the dispute, DOE's position on the dispute, supporting information and the history of the attempted resolution. The IAMIT will serve as a forum for resolution of disputes for which agreement has not been reached through informal Dispute Resolution. The Parties agree to utilize the Dispute Resolution process only in good faith and agree to expedite, to the extent possible, the Dispute Resolution process whenever it is used. Any challenge as to whether a dispute

is raised in good faith shall be subject to the provisions of this Article and addressed as part of the underlying dispute.

- B. The Ecology designated member of the IAMIT is the Program

  Manager for the Nuclear Waste Program. DOE's designated member shall be the

  Assigned Executive Manager. Notice of any delegation of authority from a

  Party's designated member on the IAMIT shall be provided to the other Party.
- C. During the period preceding the submittal of the written statement to the IAMIT, the Parties may engage in informal Dispute Resolution among the project managers. During this informal Dispute Resolution period, the Parties may meet as many times as necessary to discuss and attempt resolution of the dispute.
- Following elevation of a dispute to the IAMIT, the IAMIT shall have twenty-one (21) days to unanimously resolve the dispute. If the IAMIT is unable to unanimously agree on a resolution of the dispute, the Director of Ecology shall make a final written decision or written determination no more than thirty-five (35) days after submission of the written statement of the dispute to the IAMIT. Upon request and prior to resolution of the dispute, Ecology's Assistant Director for Waste Management shall meet with the Deputy Manager of U.S. Department of Energy, Richland Operations Office (DOE-RL) to discuss the matter. Any such meeting shall not extend the deadline by which the Director of Ecology shall make a final decision or determination. All Parties agree that this final decision or determination shall be deemed to have been decided as an adjudicative proceeding and that DOE may challenge Ecology's final decision or determination as provided by and subject to the standards contained in Ch. 34.05 RCW. If DOE objects to the decision or determination, DOE may file an appeal, at DOE's discretion, in either the Pollution Control Hearing Board (PCHB) or in the courts. If DOE elects to

file an appeal from the decision directly in the courts, Ecology agrees that it will not raise an argument that initial jurisdiction of the matter should lie with the PCHB. For all disputes requiring a final decision or determination by the Director of Ecology, Ecology shall prepare an agency record in accordance with RCW 34.05.476. The agency record for review of such final decision or determination shall consist of the following documents: (1) the Ecology disapproval that DOE disputes; (2) the written notice of objection initiating the dispute; (3) the written statement of dispute, including all attachments; (4) any correspondence between project managers concerning the dispute; (5) IAMIT meeting minutes concerning the dispute, with attachments: (6) all other documents identified by Ecology as being considered before the final decision or determination and used as a basis for the decision or determination; (7) the Director of Ecology's final written decision or determination; and (8) this Agreement. The agency record shall constitute the basis for judicial review regarding the director's final decision or determination in accordance with RCW 34.05.558.

- E. Any deadline in the Dispute Resolution process may be extended with the consent of Ecology and DOE.
- F. The pendency of any dispute under this Article shall not affect DOE's responsibility for timely performance of the work required by this Agreement, except that, when DOE has delivered a signed change request to Ecology ninety (90) days or more in advance of when a milestone or other enforceable schedule or deadline under this Agreement is due and Ecology's action on the change request has been disputed under this Article, the time period for completion of work directly affected by such dispute shall be extended for at least a period of time equal to the actual time taken to resolve any good faith dispute beyond seventy-four (74) days. In accordance

with the procedures specified in Section 12 of the Action Plan, the Parties may agree to extend or postpone any milestone or other enforceable schedule or deadline under this Agreement during the pendency of any dispute. All elements of the work required by this Agreement which are not directly affected by the dispute shall continue and be completed in accordance with this Agreement.

- G. In the event that Ecology assesses stipulated penalties under Article IX and DOE disputes the matter under this Article VIII, stipulated penalties with respect to the disputed matter shall continue to accrue but payment shall be stayed pending resolution of the dispute. Notwithstanding the stay of payment, stipulated penalties shall accrue from the first day of noncompliance with any applicable provision of the Agreement. In the event that DOE does not prevail on the disputed issue, stipulated penalties may be assessed and shall be paid as provided in Article IX.
- H. When Dispute Resolution is in progress, work affected by the dispute will immediately be discontinued if the Ecology project manager requests in writing that such work be stopped because, in Ecology's opinion, such work is inadequate or defective, and such inadequacy or defect is likely to yield an adverse affect on human health and environment, or is likely to have a substantial adverse affect on the remedy selection or implementation process. To the extent possible, Ecology shall give DOE prior notification that a work stoppage request is forthcoming. After stoppage of work, if DOE believes that the work stoppage is inappropriate, DOE may meet with Ecology to discuss the work stoppage. Within fourteen (14) days of this meeting, the Ecology project manager will issue a final written decision with respect to the stoppage. Upon receipt of this final written decision of the Ecology project manager, DOE may initiate Dispute Resolution at the IAMIT level.

- I. DOE shall abide by all terms and conditions of a final resolution of any dispute. Within twenty-one (21) days of the final resolution of any dispute under this Article, or under any appeal action, DOE shall incorporate the resolution and final determination into the appropriate plan, schedule or procedure(s) and proceed to implement this Agreement according to the amended plan, schedule or procedure(s). DOE shall notify Ecology as to the action(s) taken to comply with the final resolution of a dispute.
- J. Under the applicable portions of the Action Plan attached to this Agreement, Ecology will make final written decisions or determinations regarding compliance with Ch. 70.105 RCW. Disputes regarding these decisions or determinations shall be resolved utilizing the procedures described above, except as otherwise specifically provided in this Agreement. Ecology will also be making certain decisions and determinations as lead regulatory agency at certain CERCLA units pursuant to the Action Plan. Disputes involving Ecology's CERCLA decisions or determinations shall be resolved utilizing the Dispute Resolution process in Part Two, Article VIII except as otherwise provided in Part Four.
- K. When DOE submits RCRA Permit applications, closure plans, and post-closure plans required under Ch. 70.105 RCW which are deficient, Ecology, as appropriate, may respond with a Notice of Deficiency (NOD) documenting revisions necessary for compliance, or may, in the event the submission is found by Ecology to be not in good faith or to contain significant deficiencies, assess stipulated penalties in accordance with Article IX. In the event that NOD(s) are issued, the first two NODs on any submittal shall not be subject to the formal Dispute Resolution process. Any subsequent NOD

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may be so subject. Ecology and DOE may agree, however, to subject any NOD to Dispute Resolution.

L. In computing any period of time prescribed in this Dispute Resolution process, the day a document is received shall not be included. The last day of the period so computed shall be included, unless it is a Saturday, Sunday, or a legal holiday, in which case the period runs until the end of the next day that is neither a Saturday, Sunday nor a legal holiday.

## ARTICLE IX. STIPULATED DANGEROUS WASTE PENALTIES

31. In the event that DOE fails to submit a Primary Document pursuant to the appropriate timetable or deadline or fails to comply with a term or condition of Part Two of this Agreement or Part Three Corrective Action requirements including milestones, Ecology may assess a stipulated penalty against DOE. A stipulated penalty may be assessed in an amount up to \$5,000 for the first week (or part thereof), and up to \$10,000 for each additional week (or part thereof) for which a failure set forth in this Paragraph occurs.

If the failure in question is not already subject to Dispute Resolution at the time such assessment is received, DOE shall have seven (7) days after receipt of the assessment to invoke Dispute Resolution on the question of whether the failure did in fact occur. DOE shall not be liable for the stipulated penalty assessed by Ecology if the failure is determined, through the Dispute Resolution process, not to have occurred. No assessment of a stipulated penalty shall be final until the conclusion of Dispute Resolution procedures on DOE's failure to comply.

- 32. The annual reports required by Section 120(e)(5) of CERCLA shall include, with respect to each final assessment of a stipulated penalty against DOE under this Agreement, each of the following:
  - A. The facility responsible for the failure;
- B. A statement of the facts and circumstances giving rise to the failure:
- C. A statement of any administrative or other corrective action taken at the relevant facility, or a statement of why such measures were determined to be inappropriate;
- D. A statement of any additional action taken by or at the facility to prevent recurrence of the same type of failure; and
- E. The total dollar amount of the stipulated penalty assessed for the particular failure.
- 33. Stipulated penalties assessed pursuant to this Article shall be payable to the Hazardous Waste Control and Elimination account of the State Treasury.
- 34. All funds collected by the State from DOE penalties under this Agreement shall be used by the State as provided by the Federal Facility Compliance Act, Section 102(b).
- 35. In no event shall this Article give rise to a stipulated penalty in excess of the amount set forth in RCRA Section 3008.
- 36. This Section shall not affect DOE's ability to request an extension of a timetable, deadline, or schedule pursuant to any Section of this Agreement. No penalty shall be assessed for a violation of a timetable, deadline or schedule caused by an event of force majeure as defined under Article XLVII (Force Majeure).

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- 37. Nothing in this Agreement shall be construed to render an employee or authorized representative of DOE personally liable for the payment of any stipulated penalty assessed pursuant to this Article.
- 38. Nothing in this Agreement shall be construed as prohibiting, altering, or in any way limiting the ability of Ecology to seek any remedies or sanctions available by virtue of DOE's violation of this Agreement or, for matters not specifically addressed by this Agreement, of the statutes and regulations upon which it is based, including but not limited to penalties, pursuant to Ch. 70.105 RCW; provided, however, that the assessment of stipulated penalties shall preclude Ecology from seeking any other penalty payments from DOE under Ch. 70.105 RCW for the same violations.

# ARTICLE X. ENFORCEABILITY

- 39. In the event DOE or Ecology fails to comply with the RCRA provisions of this Agreement, the other Party may initiate judicial enforcement of the Agreement. In enforcing the RCRA provisions of this Agreement, a Party may seek injunctive relief, specific performance, sanctions or other relief available under applicable law. DOE and Ecology, prior to seeking enforcement, shall utilize the Dispute Resolution procedures of Article VIII, except as provided in Article XLVI (Reservation of Rights).
- 40. Part Two, enforceable major and interim milestones, and other RCRA provisions of this Agreement including those related to statutory requirements, regulations, permits, closure plans, or corrective action, including record keeping and reporting shall be enforceable by citizen suits under Section 7002(a)(1)(A) of RCRA, including actions by the State of Washington, Ecology or other state agencies. DOE agrees that the State or one of its agencies is a "person" within the meaning of Section 7002(a) of RCRA.

41. The Parties agree that the RCRA provisions set forth in this Agreement which address record keeping, reporting, enforceable milestones (excluding target dates), regulations, permits, closure plans, or corrective action are RCRA statutory requirements and are thus enforceable by the Parties.

# ARTICLE XI. SCHEDULE

- 42. A. Tank Waste Remediation System milestones will be established in accordance with Section 11.7 of the Action Plan.
- B. Except as provided above, specific major and interim milestones, as agreed to by the Parties, are set forth in the Action Plan.

# ARTICLE XII. COMMON TERMS

43. The provisions of Parts Four, and Five, Articles XXIII through LI below, apply to this Part Two and are incorporated herein by reference.

#### PART THREE

## REMEDIAL AND CORRECTIVE ACTIONS

# ARTICLE XIII. FINDINGS AND DETERMINATIONS

- 44. The following paragraphs of this Article constitute a summary of the facts upon which EPA and Ecology are proceeding for purposes of Part Three of this Agreement. None of the facts related herein shall be considered admissions by any Party. This Article contains findings by EPA and Ecology, and shall not be used by any person related or unrelated to this Agreement for purposes other than determining the basis of this Agreement.
- A. In and/or before 1943, the United States acquired approximately 560 square miles of land, now known as the Hanford Site. The DOE and its predecessors have operated Hanford continuously since 1943, mainly for the production of special nuclear materials for the national defense.
- B. Since the establishment of the Hanford Site in 1943, materials subsequently defined as hazardous substances, pollutants and contaminants by CERCLA, materials defined as hazardous waste and constituents by RCRA and/or Ch. 70.105 RCW, have been produced, and disposed of, or released, at various locations at the Hanford Site, including TSD Units.
- C. Certain hazardous substances, contaminants, pollutants, hazardous wastes and constituents remain on and under the Hanford Site, and have been detected in groundwater and surface water at the Hanford Site.
- D. Groundwater, surface water and air pathways provide routes for the migration of Hazardous Substances, pollutants, contaminants, and Hazardous Wastes and constituents from the Hanford Site into the environment.

- E. An estimated five billion cubic yards of solid and dilute liquid wastes, which include hazardous substances, mixed waste, and hazardous waste and constituents have been disposed of at the Hanford Site. Significant above-background concentrations of hazardous substances, including chromium, strontium-90, tritium, iodine-129, uranium, cyanide, carbon tetrachloride, nitrates, and technetium-99 have been detected in the groundwater (unconfined aquifer) at the Hanford Site. These materials have toxic, carcinogenic, mutagenic, or teratogenic effects on humans and other life forms.
- F. The Hanford Site is adjacent to the Columbia River.

  Approximately 70,000 people use groundwater and surface water obtained within three miles of the Hanford Site for drinking. This same water is used to irrigate approximately 1,000 acres.
- G. The migration of such materials presents a threat to the public health, welfare and the environment.
- H. On or about September 14, 1987, DOE voluntarily undertook and provided to EPA information and data on the Hanford Site, which supported nomination of four aggregate areas on the Hanford Site for inclusion on the NPL, pursuant to CERCLA. EPA, by letter dated April 22, 1988, deemed this information and data to be the functional equivalent of a Site Preliminary Assessment and Site Investigation (PA/SI). EPA subsequently placed the Hanford Site on the Federal Agency Hazardous Waste Compliance Docket, 52 Fed. Reg. 4280 (February 12, 1988). On June 24, 1988, EPA proposed inclusion of four subareas of the Hanford Site on the NPL.
- 45. Based on the Findings of Fact set forth in Paragraph 44, and the information available, and without admission by DOE, EPA and Ecology have determined the following:

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- A. DOE is a person as defined in Section 101(a) of CERCLA, 42 U.S.C. Sec. 9601(a).
- B. The DOE Hanford Site located in Washington State constitutes a facility within the meaning of 42 U.S.C. Sec. 9601(9).
- C. Hazardous Substances, and pollutants or contaminants within the meaning of 42 U.S.C. Secs. 9601(14) and (33) and 9604(a)(2) have been disposed of or released at the Hanford Site.
- D. There have been releases and there continue to be releases and threatened releases of Hazardous Substances, and pollutants or contaminants into the environment within the meaning of 42 U.S.C. Secs. 9601(22), 9604, 9606 and 9607 at and from the Hanford Site.
- E. With respect to those releases and threatened releases, DOE is a responsible person within the meaning of 42 U.S.C. Sec. 9607.
- F. The Hanford Site includes certain hazardous waste treatment, storage, and disposal Units authorized to operate under Section 3005(e) of RCRA, 42 U.S.C. Sec. 6925(e), and Ch. 70.105 RCW and 173-303 WAC, which are subject to the permit requirements of RCRA.
- G. Certain wastes and constituents at the Hanford Site are
  Hazardous Wastes or hazardous constituents thereof as defined by
  Section 1004(5) of RCRA, 42 U.S.C. Sec. 6903(5) and 40 CFR Part 261. There
  are also Hazardous Wastes or hazardous constituents at the Hanford Site within
  the meaning of Ch. 70.105 RCW and 173-303 WAC.
- H. There is or has been a release of Hazardous Wastes and/or hazardous constituents into the environment from the Hanford Site.
- I. The Hanford Site constitutes a facility within the meaning of Sections 3004 and 3005 of RCRA, 42 U.S.C. Secs. 6924 and 6925, and RCW 70.105.
  - J. The DOE is the owner of the Hanford Site.

K. The submittals, actions, schedules, and other elements of work required or imposed by this Agreement are reasonable and necessary to protect the public health and welfare and the environment.

## ARTICLE XIV. WORK

- 46. DOE agrees to perform the work described in this Article XIV in accordance with the Action Plan. EPA and Ecology agree to provide DOE with guidance and timely response to requests for guidance to assist DOE in its performance of work under Part Three of this Agreement. Ecology will administer RCRA Subtitle C corrective action provisions in accordance with this Agreement and issue all future modifications to the corrective action portion of the TSD permit. The selection of remedial or corrective action shall be governed by Part Three of this Agreement. Disputes between DOE and Ecology arising under this Part which involve RCRA corrective action shall be resolved in accordance with Article VIII (Resolution of Disputes).
- 47. Interim Response Actions. DOE agrees that it shall develop and implement Interim Response Actions (IRAs) at operable units being managed under CERCLA corrective action authority, as required by the lead regulatory agency, and as set forth in Chapter 7.0 of the Action Plan. The IRAs shall be consistent with the purposes set forth in Article III (Purpose) of this Agreement. In the event of dispute by DOE, the final selection of the interim response action(s) shall be made by the lead regulatory agency, and shall not be subject to dispute by the Parties. IRAs shall, to the greatest extent practicable, attain ARARs and be consistent with and contribute to the efficient performance of final response actions. A dispute arising under this Article on any matter other than final selection of an IRA shall be resolved pursuant to Article VIII where Ecology is the lead regulatory agency and

Article XVI where EPA is the lead regulatory agency, except as provided elsewhere in this Agreement.

- 48. <u>Interim Measures</u>. DOE agrees that it shall develop and implement Interim Measures (IMs) at operable units being managed under RCRA corrective action authority, as required by Ecology, and as set forth in Chapter 7.0 of the Action Plan. The IMs shall be consistent with the purposes set forth in Article III (Purpose) of this Agreement. IMs shall to the greatest extent practicable be consistent with and contribute to efficient performance of corrective actions. A dispute arising under this paragraph shall be resolved pursuant to Article VIII.
- 49. RCRA Facility Assessments. DOE agrees it shall develop, implement and report upon RCRA Facility Assessments (RFAs) which comply with applicable requirements of RCRA, the RCRA regulations, and pertinent written guidance and established written EPA and Ecology policy, and which are in accordance with the requirements and time schedules set forth in the Action Plan. Such assessment may be done for an entire Operable Unit, or individual Waste Management Units within an Operable Unit.
- 50. Remedial Investigations. DOE agrees it shall develop, implement and report upon remedial investigations (RIs) which comply with applicable requirements of CERCLA, the NCP, and pertinent written guidance and established written EPA policy, and which is in accordance with the requirements and time schedules set forth in the Action Plan.
- 51. RCRA Facility Investigations. DOE agrees it shall develop, implement and report upon RCRA facility investigations (RFIs) which comply with applicable requirements of RCRA, the RCRA regulations, and pertinent written guidance and established written EPA and Ecology policy, and which is

in accordance with the requirements and time schedules set forth in the Action Plan.

- 52. <u>Feasibility Studies</u>. DOE agrees it shall design, propose, undertake and report upon feasibility studies (FSs) which comply with applicable requirements of CERCLA, the NCP, and relevant guidance and established EPA policy, and which is in accordance with the requirements and time schedules set forth in the Action Plan.
- 53. <u>Corrective Measures Studies</u>. DOE agrees it shall design, propose, undertake and report upon corrective measure studies (CMSs) which comply with applicable requirements of RCRA, the RCRA regulations, and relevant written guidance and established written EPA and Ecology policy, and which is in accordance with the requirements and time schedules set forth in the Action Plan.
- 54. Remedial and Corrective Actions. DOE shall develop and submit its proposed remedial action (or corrective action) alternative following completion and approval of an RI and FS (or RCRA RFI and CMS), in accordance with the requirements and schedules set forth in the Action Plan. If Ecology is the lead regulatory agency, it will recommend the CERCLA remedial action(s) it deems appropriate to EPA. The EPA Administrator, in consultation with the DOE and Ecology, shall make final selection of the CERCLA remedial action(s), which shall not be subject to dispute. In accordance with the Action Plan, Ecology in consultation with DOE shall select the RCRA corrective action(s). The final selection of RCRA corrective action(s) by Ecology shall be final and not subject to dispute. Notwithstanding this Article, or any other Article of this Agreement, the State may seek judicial review of an interim or final remedial action in accordance with Sections 113 and 121 of CERCLA, 42 U.S.C. Secs. 9613 and 9621.

- 55. Implementation of Remedial and Corrective Actions. Following final selection, DOE shall design, propose and submit to the lead regulatory agency, a detailed plan for implementation of each selected remedial action(s) and RCRA corrective action(s), which shall include operations and maintenance plans, appropriate timetables and schedules. Following review and approval by the lead regulatory agency, DOE shall implement the remedial action(s) and RCRA corrective action(s) in accordance with the requirements and time schedules set forth in the Action Plan to this Agreement. A dispute arising under this Article on any matter other than EPA's final selection of a remedial action shall be resolved pursuant to Article VIII where Ecology is the lead regulatory agency and Article XVI where EPA is the lead regulatory agency.
- 56. All work described above, whether labeled "remedial action" or "corrective action," and whether performed pursuant to CERCLA and an RI/FS or the RCRA/HSWA equivalent shall be governed by this Part Three. CERCLA remedial action and, as appropriate, HSWA corrective action shall meet ARARs in accordance with CERCLA Section 121.
- 57. Notwithstanding any part of this Agreement, Ecology may obtain judicial review of any final decision of EPA on selection of a final remedial action at any Operable Unit pursuant to Section 113 of CERCLA. Ecology also reserves the right to obtain judicial review of any ARAR determination pursuant to Section 121 of CERCLA.

# ARTICLE XV. REVIEW OF DOCUMENTS

58. The provisions of Section 9.0 of the Action Plan establish the procedures that shall be used by DOE, EPA, and Ecology to provide the Parties with appropriate notice, review, comment and response to comments regarding

RI/FS, Remedial Design and Remedial Action (RD/RA) documents (or RCRA Corrective Action equivalent) specified as either Primary or Secondary Documents in the Action Plan. All primary documents shall be subject to Dispute Resolution in accordance with Article VIII where Ecology is the lead regulatory agency and Article XVI where EPA is the lead regulatory agency. Secondary documents are not subject to Dispute Resolution. In accordance with Section 120 of CERCLA, DOE will be responsible for issuing primary and secondary documents to the lead regulatory agency. The lead regulatory agency shall be responsible for consolidating comments and providing responses to DOE on all required submittals for the Operable Units for which it is the designated lead regulatory agency. No guidance, suggestions, or comments by Ecology or EPA will be construed as relieving DOE of its obligation to obtain formal approval required by Part Three of this Agreement.

# ARTICLE XVI. RESOLUTION OF DISPUTES

59. If a dispute arises under Part Three of this Agreement with respect to a matter for which EPA is the lead regulatory agency, or as specifically set forth elsewhere in this Agreement, the procedures of this Article shall apply. These procedures shall not apply, however, where otherwise specifically excluded. EPA and DOE shall make reasonable efforts to informally resolve disputes. Except as provided in Paragraph 46, if resolution cannot be achieved informally, the procedures of this Article shall be implemented to resolve a dispute. These Dispute Resolution provisions shall not apply to RCRA permit actions which are otherwise subject to administrative or judicial appeal. These Dispute Resolution provisions shall not apply to enforcement actions which are otherwise subject to administrative

or judicial appeal, except that these Dispute Resolution provisions shall apply in the event of the assessment of stipulated penalties.

- A. Within thirty (30) days after: (1) the period established for review of a primary document pursuant to Article XV (Review of Documents), or (2) any action which leads to or generates a dispute, the disputing Party shall submit to the IAMIT a written statement setting forth the nature of the dispute, the work affected by the dispute, the disputing Party's position with respect to the dispute, the information the disputing Party is relying upon to support its position, and a description of all steps taken to resolve the dispute.
- B. Prior to issuance of a written statement of dispute, the disputing Party shall engage the other Party in informal Dispute Resolution among the project managers. During this informal Dispute Resolution period the EPA and DOE shall meet as many times as necessary to discuss and attempt resolution of the dispute.
- C. If agreement cannot be reached on any issue within the informal Dispute Resolution period, the disputing Party shall forward the written statement of dispute to the IAMIT within the thirty (30) days specified in subparagraph A above, thereby elevating the dispute to the IAMIT for resolution.
- D. The IAMIT will serve as a forum for resolution of disputes for which agreement has not been reached through informal dispute resolution. EPA and DOE shall each designate in writing one individual and an alternate to serve on the IAMIT. The individuals designated to serve on the IAMIT shall be employed at the Executive Managers level. The EPA representative on the IAMIT is the Project Manager, Hanford Project Office of EPA Region 10. DOE's representative on the IAMIT will be the Assigned Executive Manager.

Written notice of any delegation of authority from a Party's designated representative on the IAMIT shall be provided to the other Party pursuant to the procedures of Article XXXIII (Notification).

- E. Following elevation of a dispute to the IAMIT, the IAMIT shall have twenty-one (21) days to unanimously resolve the dispute and issue a written decision. If the IAMIT is unable to unanimously resolve the dispute within this twenty-one 21-day period, the written statement of dispute shall be forwarded by the disputing Party within seven (7) days to the Senior Executive Committee (SEC) for resolution.
- F. The SEC will serve as the forum for resolution of disputes for which agreement has not been reached by the IAMIT. EPA's representative on the SEC is the Director, Office of Environmental Clean Up of EPA Region 10. DOE's representative on the SEC is the DOE Richland Operations Office Deputy Manager. The SEC members shall, as appropriate, confer, meet and exert their best efforts to resolve the dispute. The SEC shall have twenty-one (21) days to unanimously resolve the dispute.
- G. If unanimous resolution of the dispute is not reached within twenty-one (21) days, EPA's Regional Administrator shall issue a final written decision resolving the dispute within fourteen (14) days. This authority can not be delegated. The time for issuing a final decision may be extended by EPA upon notice to the other Parties.
- H. Within fourteen (14) days of the Regional Administrator's issuance of the final written decision on the dispute, DOE may request that the Administrator of EPA resolve the dispute if the Secretary of Energy determines that the decision of the Regional Administrator has significant national policy implications. The request must be in writing, and must identify the basis for the determination by the Secretary that the decision

has significant national policy implications. If no such request is made within the fourteen (14) day period, DOE shall be deemed to have agreed with the Regional Administrator's written decision. If such a request is made, the Administrator will review and resolve the dispute in accordance with applicable law and regulations within twenty-one (21) days. Upon request and prior to resolving the dispute, the Administrator may meet and confer with the DOE to discuss the issues under dispute. The Administrator shall provide five (5) days advance notice of such meeting. Upon resolution, the Administrator shall provide a written final decision setting forth resolution of the dispute. The duties of the EPA Administrator and Secretary of Energy set forth in this Article XVI shall not be delegated.

- I. The pendency of any dispute under this Part shall not affect DOE's responsibility for timely performance of the work required by this Agreement, except that, when DOE has delivered a change request to EPA one hundred seven (107) days or more in advance of when a milestone or other enforcement schedule or deadline under this Agreement is due and EPA's action on the change request has been disputed under this Article, the time period for completion of work directly affected by such dispute shall be extended for a period of time usually not to exceed the actual time taken to resolve any good faith dispute beyond ninety-three (93) days. In accordance with the procedures specified in Section 12 of the Action Plan, the Parties may agree to extend or postpone any milestone or other enforceable schedule or deadline under this Agreement during the pendency of any dispute. All elements of the work required by this Agreement which are not directly affected by the dispute shall continue and be completed in accordance with this Agreement.
- J. In the event that EPA assesses stipulated penalties under Article XX (Stipulated Penalties) and DOE disputes the matter under this

Article XVI, stipulated penalties with respect to the disputed matter shall continue to accrue but payment shall be stayed pending resolution of the dispute. Notwithstanding the stay of payment, stipulated penalties shall accrue from the first day of noncompliance with any applicable provision of the Agreement. In the event that Energy does not prevail on the disputed issue, stipulated penalties may be assessed and shall be paid as provided in Article XX (Stipulated Penalties).

- K. When Dispute Resolution is in progress, work affected by the dispute will immediately be discontinued if the EPA project manager requests in writing that such work be stopped because, in EPA's opinion, such work is inadequate or defective, and such inadequacy or defect is likely to yield an adverse affect on human health and environment, or is likely to have a substantial adverse affect on the remedy selection or implementation process. To the extent possible, EPA shall give DOE prior notification that a work stoppage request is forthcoming. After stoppage of work, if DOE believes that the work stoppage is inappropriate, DOE may meet with the EPA to discuss the work stoppage. Within fourteen (14) days of this meeting, the EPA project manager will issue a final written decision with respect to the stoppage. Upon receipt of this final written decision of the EPA project manager, DOE may initiate Dispute Resolution at the IAMIT level.
- L. Within twenty-one (21) days of resolution of any dispute, DOE shall incorporate the resolution and final determination into the appropriate plan, schedule or procedures and proceed to implement this Agreement according to the amended plan, schedule or procedures.
- M. Resolution of a dispute pursuant to this Article constitutes final resolution of the dispute and all Parties shall abide by all terms and conditions of such final resolution.

- N. Any deadline in the dispute resolution process may be extended with the consent of DOE and EPA.
- O. In computing any period of time prescribed in this dispute resolution process, the day a document is received shall not be included. The last day of the period so computed shall be included, unless it is a Saturday, Sunday, or a legal holiday, in which case the period runs until the end of the next day that is neither a Saturday, Sunday nor a legal holiday.

## ARTICLE XVII SCHEDULE

- 60. DOE shall commence Remedial Investigations (RIs) and Feasibility Studies (FSs) for one Operable Unit of each subarea of the Hanford Site included on the NPL within six (6) months after such listing on the NPL. Schedules for such RIs and FSs, are set forth in the Action Plan. The Parties agree that this phased schedule satisfies Section 120(e)(1) of CERCLA. RI/FS schedules for each Operable Unit will be published by the lead regulatory agency, as provided in Section 120(e)(1) of CERCLA.
- after completion of the RI/FS (including EPA selection of the remedy) for the first priority Operable Unit, in accordance with Section 120(e)(2) of CERCLA and the schedule in the Action Plan. DOE shall complete the remedial action as expeditiously as possible, as required by CERCLA Section 120(e)(3). In accordance with the schedule(s) in the Action Plan, subsequent remedial action at other operable units shall follow and be completed as expeditiously as possible as subsequent RI/FSs are completed and approved. The Parties agree that this phased schedule satisfies Section 120(e)(2) and (3) of CERCLA.
- 62. Specific major and interim milestones and schedules, as agreed to by the Parties, are set forth in the Action Plan.

# ARTICLE XVIII. PERMITS

- 63. The Parties recognize that under CERCLA Secs. 121(d) and 121(e)(1), and the NCP, portions of the response actions called for by this Agreement and conducted entirely on the Hanford Site are exempted from the procedural requirement to obtain federal, state, or local permits, but must satisfy all the applicable or relevant and appropriate federal and state standards, requirements, criteria or limitations which would have been included in any such permit.
- 64. When DOE proposes a response action to be conducted entirely on the Hanford Site, which in the absence of CERCLA Sec. 121(e)(1) and the NCP would require a federal or state permit, DOE shall include in the submittal:
- A. Identification of each permit which would otherwise be required;
- B. Identification of the standards, requirements, criteria, or limitations which would have had to have been met to obtain each such permit;
- C. Explanation of how the response action proposed will meet the standards, requirements, criteria or limitations identified in Subparagraph B immediately above.
- 65. Upon the request of DOE, the lead regulatory agency will provide its position with respect to Subparagraphs 64 B and C above in a timely manner.
- 66. This Article is not intended to relieve DOE from any applicable requirements, including Section 121(d)(3) of CERCLA, for the shipment or movement of a hazardous waste or substance off the Hanford Site. DOE shall obtain all permits and comply with applicable federal, state or local laws for such shipments. DOE shall submit timely applications and requests for such permits and approvals. Disposal of hazardous substances off the Hanford Site

shall comply with DOE's Policy on Off-Site Transportation, Storage and Disposal of Nonradioactive Hazardous Waste dated June 24, 1986, or as subsequently amended, and the EPA Off-Site Response Action Policy dated May 6, 1985, 50 Federal Register 45933 (November 5, 1985), as amended by EPA's November 13, 1987 "Revised Procedures for Planning and Implementing Off-Site Response Actions," and as subsequently amended, to the extent required by CERCLA.

- 67. DOE shall notify the lead regulatory agency in writing of any permits required for off-Hanford activities related to this Agreement as soon as DOE-RL becomes aware of the requirement. Upon request, DOE shall provide the lead regulatory agency with copies of all such permit applications and other documents related to the permit process.
- off-Hanford activities of this Agreement is not issued, or is issued or renewed in a manner which is materially inconsistent with the requirements of this Agreement, DOE shall notify the lead regulatory agency of its intention to propose modifications to this Agreement to comply with the permit (or lack thereof). Notification by DOE of its intention to propose modifications shall be submitted within seven (7) calendar days of receipt by DOE of notification that: (1) a permit will not be issued; (2) a permit has been issued or reissued; (3) a final determination with respect to any appeal related to the issuance of a permit has been entered. Within thirty (30) days from the date it submits its notice of intention to propose modifications, DOE shall submit to the lead regulatory agency its proposed modifications to this Agreement with an explanation of its reasons in support thereof.
- 69. The lead regulatory agency shall review DOE's proposed modifications to this Agreement pursuant to this Article. If DOE submits

proposed modifications prior to a final determination of any appeal taken on a permit needed to implement this Agreement, the lead regulatory agency may elect to delay review of the proposed modifications until after such final determination is entered. If the lead regulatory agency elects to delay review, DOE shall continue implementation of this Agreement as provided in the following paragraph.

70. During any appeal of any permit required to implement this Agreement or during review of any of DOE's proposed modifications as provided in the preceding paragraph, DOE shall continue to implement those portions of this Agreement which can be reasonably implemented pending final resolution of the permit issue(s).

# ARTICLE XIX. RECOVERY OF EPA CERCLA RESPONSE COSTS

71. EPA and DOE agree to amend this section at a later date in accordance with any subsequent resolution of the currently contested issue of EPA cost reimbursement.

# ARTICLE XX. STIPULATED PENALTIES

72. In the event that DOE fails to submit a CERCLA primary document pursuant to the appropriate timetable or deadline in accordance with Part Three of this Agreement, or fails to comply with a term or condition of Part Three of this Agreement which relates to an interim or final remedial action, including milestones associated with the development, implementation and completion of an RI or FS, EPA may assess a stipulated penalty against DOE. If Ecology determines that DOE has failed in a manner as set forth above for which it is the lead regulatory agency, Ecology may identify stipulated penalties to EPA and, unless it is a disputed matter under Paragraph 73, these

penalties shall be assessed in accordance with this Article. A stipulated penalty may be assessed in an amount up to \$5,000 for the first week (or part thereof), and up to \$10,000 for each additional week (or part thereof) for which a failure set forth in this paragraph occurs.

- Paragraph 72 the lead regulatory agency shall notify DOE in writing. If the failure in question is not or has not already been subject to Dispute Resolution either under Part Two or Part Three at the time notice of the assessment of stipulated penalties is received, DOE shall have fifteen (15) days to invoke Dispute Resolution under Part Three on the question of whether the failure did in fact occur. In the event Ecology is the lead regulatory agency the Ecology project manager and the Ecology IAMIT and SEC members shall participate in the Part Three Dispute Resolution process. DOE shall not be liable for the stipulated penalty assessed by EPA if the failure is determined, through the Dispute Resolution process, not to have occurred. No assessment of a stipulated penalty shall be final until the conclusion of dispute resolution procedures on DOE's failure to comply.
- 74. The annual reports required by Section 120(e)(5) of CERCLA shall include, with respect to each final assessment of a stipulated penalty against DOE under this Agreement, each of the following:
  - A. The facility responsible for the failure;
- B. A statement of the facts and circumstarices giving rise to the failure;
- C. A statement of any administrative or of ther corrective action taken at the relevant facility, or a statement of why such measures were determined to be inappropriate;

- D. A statement of any additional action taken by or at the facility to prevent recurrence of the same type of failure; and
- E. The total dollar amount of the stipulated penalty assessed for the particular failure.
- 75. Stipulated penalties assessed pursuant to this Article for violations of CERCLA requirements shall be payable to the Hazardous Substances Response Trust Fund from funds authorized and appropriated for that specific purpose.

#### 76. RESERVED

- 77. In no event shall this Article give rise to a CERCLA stipulated penalty in excess of the amount set forth in CERCLA Section 109.
- 78. This Article shall not affect DOE's ability to obtain an extension of a timetable, deadline or schedule pursuant to Article XL and in accordance with Section 12.0 of the Action Plan.
- 79. Nothing in this Agreement shall be construed to render an employee or Authorized Representative of DOE personally liable for the payment of any stipulated penalty assessed pursuant to this Article.
- 80. Nothing in this Agreement shall be construed as prohibiting, altering, or in any way limiting the ability of EPA to seek any remedies or sanctions available by virtue of DOE's violation of this Agreement or, for matters not specifically addressed by this Agreement, of the statutes and regulations upon which it is based, including but not limited to penalties, pursuant to CERCLA and RCRA; provided, however, that the assessment of stipulated penalties shall preclude EPA from seeking any other penalty payments from DOE under RCRA or CERCLA for the same violations.

# ARTICLE XXI. ENFORCEABILITY

- 81. The Parties agree that compliance with the terms of this Agreement, including all timetables and deadlines associated with this Agreement shall be construed as compliance with CERCLA Section 120(e)(3).
  - 82. The Parties agree that:
- A. Upon the effective date of this Agreement, any standard, regulation, condition, requirement or order which has become effective under CERCLA or is incorporated into Part Three of this Agreement (with the exception of any such obligations which are imposed solely pursuant to Subtitle C of RCRA and are not determined by EPA to be ARARs) is enforceable by any person pursuant to CERCLA Section 310, and any violation of such standard, regulation, condition, requirement or order will be subject to civil penalties under CERCLA Secs. 310(c) and 109;
- B. All timetables or deadlines, associated with the development, implementation and completion of an RI or FS, shall be enforceable by any person pursuant to CERCLA Section 310 and any violation of such timetables or deadlines will be subject to civil penalties under CERCLA Secs. 310(c) and 109;
- C. All terms and conditions of this Agraement which relate to interim or final remedial actions, including corresponding timetables, deadlines or schedules, and all work associated with the interim or final remedial actions, shall be enforceable by any person pursuant to CERCLA Section 310 and any violation of such terms or conditions will be subject to civil penalties under CERCLA Secs. 310(c) and 109; and
- D. Any final resolution of a dispute pursuant to Article XVI (Resolution of Disputes) which establishes a term, condition, timetable, deadline or schedule shall be enforceable by any person pursuant to CERCLA

Section 310(c) and any violation of such term, condition, timetable, deadline or schedule will be subject to civil penalties under CERCLA Secs. 310(c) and 109.

- 83. Nothing in this Agreement shall be construed as authorizing any person to seek judicial review of any action or work where review is barred by any provision of RCRA or CERCLA, including CERCLA Section 113(h).
- 84. The Parties agree that all Parties shall have the right to enforce the terms of this Agreement in accordance with its provisions.

# ARTICLE XXII. COMMON TERMS

85. The provisions of Parts Four and Five, Articles XXIII through LI below, apply to this Part Three and are incorporated herein by reference.

## PART FOUR

#### INTEGRATION OF EPA AND ECOLOGY RESPONSIBILITIES

## ARTICLE XXIII. RCRA/CERCLA INTERFACE

- work under the direction and authority of Ecology. Part Three of this
  Agreement requires DOE to carry out investigations and cleanup of
  past-practice units through the CERCLA process under the authority of EPA, or
  through the RCRA Corrective Action process under the authority of Ecology.
  This Part Four establishes the framework for EPA and Ecology to resolve
  certain disputes that may arise concerning the respective responsibilities of
  the two regulatory agencies.
- 87. EPA and Ecology recognize that there is a potential for the two regulatory agencies to impose conflicting requirements upon DOE, due to the complexities of the Hanford Site (where RCRA TSDs, and past-practice units may be in close proximity to each other) and due to the overlap between the respective authorities of the two regulatory agencies. EPA and Ecology intend to carry out their responsibilities so as to minimize the potential for any such conflicts. Except as otherwise specified in Appendices C and D, either EPA or Ecology shall be lead regulatory agency for oversight of DOE's work for all operable units, TSD groups/units or milestones covered by this Agreement.

# ARTICLE XXIV. LEAD REGULATORY AGENCY AND REGULATORY APPROACH DECISIONS

88A. The designation of lead regulatory agency and regulatory process for each operable unit, TSD group/unit or milestone shall be made through the change process in Section 12.0 of the Action Plan. EPA and

Ecology have joint authority to determine the choice of lead regulatory agency and regulatory process, in consultation with DOE, and DOE shall not dispute such joint determinations.

- B. If the EPA and Ecology cannot agree on the choice of lead agency and/or regulatory process for any operable unit, TSD group/unit or milestone, then the issue shall enter the dispute resolution process as provided in Article XXVI. If, following such dispute resolution process, EPA and Ecology cannot agree, then the releases and units that are the subject of the dispute shall be considered a matter which Ecology, EPA, and DOE have chosen not to address under this Agreement, and all Parties reserve all rights and authorities with respect to such matters.
- 89. Except as otherwise specified in Appendices C and D, either EPA or Ecology will serve as lead regulatory agency for each operable unit, TSD group/unit and milestone, and the non lead regulatory agency will generally not be involved. EPA and Ecology will enter into an Memorandum of Understanding (MOU) which will describe the circumstances when the lead regulatory agency and non-lead agency will interact and coordinate activities. These include instances where:
  - A. The lead regulatory agency has requested the assistance or involvement of the non lead agency;
  - B. Ecology lacks legal authority to approve or require action, such as approval of a CERCLA remedial action;
  - C. The non lead agency has a mandatory legal obligation or duty, such as under a permit;
  - D. EPA is the lead regulatory agency, and Ecology concurrence is sought for a CERCLA Remedial Action.

Any disputes between EPA and Ecology concerning RCRA matters that cannot be resolved in accordance with the MOU, may be referred by either EPA or Ecology to dispute resolution under Article XXVI. In the event that EPA and Ecology cannot agree on the selection of CERCLA remedial action where Ecology is the lead regulatory agency, DOE will be notified and the dispute will be elevated to the IAMIT and resolved in accordance with Article XVI. For such disputes, the IAMIT and SEC will include the Ecology representatives designated in Article VIII. In the event the matter is elevated to the Administrator for resolution, Ecology will be notified and invited to participate in any meeting with DOE to discuss the issues under dispute.

# ARTICLE XXV. PHYSICALLY INCONSISTENT ACTIONS

- 90. EPA and Ecology intend that neither regulatory agency shall direct actions to be taken at the Hanford Site that are physically inconsistent with other actions directed by either regulatory agency at the Site. This provision applies to any actions required to be taken at the site under RCRA or CERCLA. For the purposes of this Agreement, Physically Inconsistent Action shall mean any action which, if implemented, would reduce the overall effectiveness of other response actions. The setting of priorities for action based on budgetary considerations shall not be used as a factor in determining the presence of physical inconsistency. The provisions of this Article are independent of and do not modify or otherwise affect the provisions of Article XXVIII (RCRA/CERCLA Reservation of Rights).
- 91. In the event of a dispute between EPA and Ecology over an issue of physical inconsistency, either Party may refer such dispute to the dispute resolution process at Article XXVI. In resolving a dispute concerning a possible physical inconsistency, the parties shall attempt to resolve the

dispute in such a way as to promote timely cleanup and benefit to the net overall environmental quality of the Hanford Site.

If at the conclusion of that dispute resolution process, the Parties have not agreed on a resolution of the dispute, then the releases and activities that are the subject of the dispute shall be considered a matter which the Parties have chosen not to address under this Agreement, and the Parties reserve all rights and authorities with respect to such matters.

## ARTICLE XXVI. DISPUTE RESOLUTION

- 92. Except as otherwise provided in Paragraph 89, Resolution of Dispute between Ecology and EPA shall be resolved in the following manner:
- A. On discovery of any dispute between Ecology and EPA, each regulatory agency's project managers shall make reasonable efforts to informally resolve such disputes. If informal resolution cannot be achieved, the disputing Party shall submit a written statement of dispute setting forth the nature of the dispute, the disputing Party's position with respect to the dispute, and the information relied upon to support its position to the IAMIT as described below. Receipt of such a statement by the IAMIT shall constitute formal elevation of the dispute in question to the IAMIT. At such time as the disputing Party submits a statement of dispute to the IAMIT, a copy shall be sent to DOE. The IAMIT will serve as a forum for resolution of disputes for which agreement has not been reached through informal dispute resolution. Ecology and EPA agree to utilize the dispute resolution process only in good faith and agree to expedite, to the extent possible, the Dispute Resolution process whenever it is used.
- B. The Ecology designated representative of the IAMIT is the Program Manager for Nuclear Waste. EPA's designated representative of the

IAMIT is the Project Manager, Hanford Project Office of EPA's Region 10. Following elevation of a dispute to the IAMIT, the IAMIT shall have twenty one (21) days to unanimously resolve the dispute. Any successful resolution shall be documented within an additional twenty one (21) days by a jointly signed determination outlining the resolution reached. At such time, a copy of such documentation shall be sent to DOE. If the IAMIT is unable to unanimously agree on a resolution, the members shall forward pertinent information and their respective recommendations to the SEC for resolution.

- C. The Ecology designated member of the SEC is the Assistant Director for Waste Management. EPA's designated member of the SEC is the Director, Office of Environmental Clean Up of EPA Region 10. The SEC will serve as the forum for resolution of disputes for which agreement has not been reached by the IAMIT. The SEC members shall, as appropriate, confer, meet and exert their best efforts to resolve the dispute. The DOE-RL Deputy Manager shall meet with the SEC to assist in resolving the dispute. The SEC shall have twenty one (21) days to unanimously resolve the dispute. Any successful resolution shall be documented, within an additional twenty one (21) days, by a jointly signed determination outlining the resolution reached. At such time, a copy of such documentation shall be sent to DOE.
- D. Throughout the above dispute resolution process, EPA and Ecology shall consult, as appropriate, with DOE in order to facilitate resolution of disputes.
- 93. If disputes are not resolved pursuant to this Article, such disputes shall be subject to Article XXVIII.
- 94. The pendency of any dispute under this Part shall not affect DOE's responsibility for timely performance of the work required by this Agreement, except that the time period for completion of work directly

affected by such dispute shall be extended for a period of time usually not to exceed the actual time taken to resolve any good faith dispute in accordance with the procedures specified herein. All elements of the work required by this Agreement which are not directly affected by the dispute shall continue and be completed in accordance with this Agreement.

## ARTICLE XXVII. OTHER DISPUTES AND EPA OVERSIGHT

- 95. If there are other disputes between Ecology and EPA concerning overlaps between Part Two and Part Three of this Agreement, Ecology and EPA shall use the dispute resolution process in Article XXVI to resolve such disputes.
- 96. The provisions of this Agreement do not eliminate EPA's responsibility for oversight of Ecology's exercise of its authorized RCRA authorities. In carrying out any such oversight, EPA shall follow the statutory and regulatory procedures for such oversight and the provisions of this Agreement, including, as appropriate, the Dispute Resolution process in Article XXVI.

## ARTICLE XXVIII. RCRA/CERCLA RESERVATION OF RIGHTS

- 97. If EPA and Ecology are unable to resolve jointly any dispute arising under this Part, then each regulatory agency reserves its rights to impose its requirements directly on DOE, to defend the basis for those requirements, and to challenge the other regulatory agency's conflicting requirements. In such event, DOE reserves its right to raise any defenses available.
- 98. EPA and Ecology each reserve its right after utilizing the Dispute Resolution process in Part Four, to seek judicial review of a proposed

decision or action taken with respect to corrective or remedial actions at any given operable unit on the grounds that either EPA or Ecology claims that such proposed decision or action conflicts with its respective laws governing protection of human health and/or the environment. It is the understanding of the Parties that this reservation is intended to provide for challenges where the adequacy of protection of human health and the environment or the means of achieving such protection is at issue.

#### PART FIVE

#### COMMON PROVISIONS

### ARTICLE XXIX. RECOVERY OF STATE COSTS

- 99. DOE agrees to reimburse Ecology for all of its costs related to the implementation of this Agreement as provided below:
  - A. Reimbursement of Department of Ecology RCRA Costs:
- 1. DOE agrees to pay to the appropriate account of the Treasury of the State of Washington, all reasonable fees and other service charges which would be payable by any person managing hazardous and/or radioactive mixed waste under applicable Washington law, including the mixed waste management fee assessed pursuant to RCW 70.105.280 and chapter 173-328 WAC. Program elements or activities for which the mixed waste management fee may be assessed include (a) office, staff, and staff support for the purposes of facility or unit permit development, review, and issuance, and (b) actions taken to determine and ensure compliance with the state's hazardous waste management act, as detailed in WAC 173-328-040. In the event DOE disputes any fees or service charges by Ecology, DOE may contest the disputed fees or service charges in accordance with the appeal procedures provided under applicable law.
- 2. Ecology shall provide DOE-RL by June 15 of each year a preliminary billing statement reflecting the fee to be assessed to DOE-RL for the upcoming twelve-month period, by quarter, beginning July 1. Ecology shall, prior to September 15, notify DOE-RL of actual adjustments arising from the previous twelve-month period's cost performance against amounts paid by DOE-RL in response to the previous October's billing statement. Ecology shall

after October 1 send DOE-RL a final billing statement which identifies the mixed waste management fee costs assessed to DOE-RL for the twelve-month period beginning the previous July 1. This statement shall be accompanied by an itemization of changes from the preliminary statement sent prior to June 15. DOE-RL shall promptly pay this billing.

- 3. Ecology shall by January 31 of each year provide DOE-RL a forecast of planned waste management fees chargeable to DOE-RL. The forecasts shall be annual projections for a period of seven federal fiscal years beginning the previous October 1. Such forecasts shall include supporting information which explains significant annual changes in proposed funding requirements. The Parties acknowledge that these forecasts are estimates and that actual fees may differ from the forecasts.
  - B. Reimbursement of Department of Ecology CERCLA Costs:
- DOE agrees to reimburse Ecology for its CERCLA costs directly related to implementation of this Agreement up to the amount authorized through a yearly grant by DOE to Ecology.
- 2. By July 1, Ecology shall submit to DOE a proposed workscope and estimates of cost to be incurred relating to CERCLA work to be performed under this Agreement by Ecology for the upcoming period October 1 to September 30. DOE shall respond, in writing, with questions regarding this proposal, no later than August 1. The two Parties shall work diligently toward completion of grant negotiations leading to placement of award by October 1. DOE shall award grant funds to Ecology for the upcoming budget period from October 1, to September 30, in the amount consistent with the negotiated funding. In the event of delay in congressional appropriation and Continuing Resolution, funding under this grant shall be in incremental amounts. Initial funding of 70 percent of the negotiated amount for the grant period will be provided upon

receipt of an Office of Management and Budget (OMB) funding allotment. Total approved funding shall be provided to Ecology within 30 days after receipt by DOE-RL of the final Financial Status Report from Ecology for the previous grant period. All CERCLA costs incurred by Ecology shall be costs directly related to this Agreement and costs not inconsistent with CERCLA and the NCP.

- 3. In the event that DOE contends that any costs incurred were not directly related to the implementation of this Agreement or were incurred in a manner inconsistent with CERCLA or the NCP, DOE may challenge the costs allowable under the grant to Ecology. If unresolved, Ecology's demand, and DOE's challenge, may be resolved through the appeals procedures set forth in 10 CFR Part 600 and 10 CFR Part 1024.
- 4. DOE shall not be responsible for reimbursing Ecology for any costs actually incurred in excess of the amount authorized each budget period in the grant award.
- 5. Ecology shall by January 31 of each year provide DOE-RL a forecast of planned CERCLA grant funding requirements. The forecasts shall be annual projections for a period of seven federal fiscal years beginning the previous October 1. Such forecasts shall include supporting information which explains significant annual changes in proposed funding requirements. The Parties acknowledge that these forecasts are estimates, and that actual grant requests may differ from the forecasts.
  - C. Reimbursement of other Department of Ecology Costs:
- 1. DOE agrees to pay justifiable costs incurred by Ecology in the implementation of this Agreement which are not covered by payments made pursuant to subparagraphs A and B above.

- 2. For such costs that may be recouped through the assessment of a fee, other than a mixed waste fee, DOE agrees to pay the fee assessed in the time permitted by law. In the event DOE disputes any fees assessed by Ecology, DOE may contest the disputed fees in accordance with the appeal procedures provided under applicable law.
- 3. For costs such as those costs related to Public Involvement, Emergency Preparedness Planning and oversight of Environmental Monitoring that may not be recouped through the assessment of a fee, DOE agrees to reimburse Ecology through a yearly grant. On an annual basis, Ecology shall submit to DOE a proposed cost estimate for work and services, not otherwise covered by subparagraphs A, or B, above, to be performed by the State in the implementation of this Agreement during the upcoming federal fiscal year. Subsequent to review by DOE, DOE shall issue funds to Ecology in an amount consistent with the estimated approved workscope and costs.
- 4. Ecology shall by January 31 of each year provide DOE-RL a forecast of planned funding requirements for other grants or fees not identified in subparagraphs A and B above. The forecasts shall be in the form of annual projections for a period of seven federal fiscal years beginning the previous October 1. Such forecasts shall include supporting information which explains significant annual changes in proposed funding requirements.
  - D. Report, Records, and Accounts:
- 1. Ecology agrees to keep records and books of account, in accordance with generally accepted accounting principles and practices, covering DOE's payment of funds and Ecology's use of such funds under subparagraphs B and C.3 above.

- 2. Ecology will provide to DOE within 30 days after the end of each quarter and 90 days after the end of each state fiscal year, a Financial Status Report (SF 269, short form) showing the expenditure of DOE funds provided pursuant to subparagraphs B and C.3 above.
- 3. DOE shall at all reasonable times be afforded access to books and records and to related correspondence, receipts, voucher, memoranda, and other data reflecting the use of DOE funds provided pursuant to subparagraphs B and C.3 above. Ecology shall preserve such books and papers in accordance with the retention requirements referenced in subparagraph D.4 below.
- 4. The Comptroller General of the United States or any of his or her duly authorized representatives shall, until the expiration of 3 years after the payment of funds pursuant to subparagraphs B or C.3 above, have access to and the right to examine any directly pertinent books, documents, papers, and records of the State involving transactions covered by subparagraphs B or C.3 above.
- 5. Expenditures of funds received pursuant to subparagraphs B or C.3 above are subject to the requirements of the Single Audit Act of 1984 (P.L. 98-502) and Office of Management and Budget Circular A-128 (Audits of State and Local Governments).
- 6. Nothing herein shall be deemed to preclude an audit by the General Accounting Office of any funds received pursuant to subparagraph B or C.3 above.
- 100. Ecology's performance of its obligations under this Agreement shall be excused if its justifiable costs are not paid as required by this Article.

#### ARTICLE XXX. ADDITIONAL WORK OR MODIFICATION TO WORK

- 101. In the event that additional work, or modification to work, including remedial investigatory work and/or engineering evaluation, is necessary to accomplish the objectives of this Agreement, notification and description to such additional work or modification to work shall be provided to DOE. DOE will evaluate the request and notify the requesting Party within thirty (30) days of receipt of such request of its intent and ability to perform such work, including the impact such additional work will have on budgets and schedules. If DOE does not agree that such additional work is required by this Agreement or if DOE asserts such additional work is otherwise inappropriate, the matter shall be resolved in accordance with the Dispute Resolution procedures of Part Two or Part Three of this Agreement, as appropriate. Field modifications, as set forth in the Action Plan, are not subject to this Article. Extensions of schedules may be provided pursuant to Article XL and Section 12.0 of the Action Plan.
- 102. Any additional work or modification to work determined to be necessary by DOE shall be proposed to the lead regulatory agency by DOE and will be subject to review in accordance with the appropriate Dispute Resolution procedures of Part Two or Part Three of this Agreement, as appropriate, prior to initiation.
- affect work schedules or will require significant revisions to an approved schedule, the lead regulatory agency project manager shall be immediately notified of the situation followed by a written explanation within seven (7) days of the initial notification. Requests for extensions of schedule(s) shall be evaluated in accordance with Article XL.

#### ARTICLE XXXI. QUALITY ASSURANCE

- 104. All response work performed pursuant to this Agreement shall be done under the direction and supervision or in consultation with, as necessary, a qualified engineer, hydrogeologist, or other expert, with experience and expertise in hazardous waste management, hazardous waste site investigation, cleanup, and monitoring.
- and analyses activities required to implement this Agreement, DOE shall use procedures for quality assurance (QA), and for quality control (QC), in accordance with approved EPA methods, including subsequent amendments to such procedures. The DOE shall use methods and analytical protocols for the parameters of concern in the media of interest within detection and quantification limits in accordance with both QA/QC procedures and data quality objectives approved in the work plan, RCRA closure plan or RCRA permit. The lead regulatory agency may require that DOE submit detailed information to demonstrate that any of its laboratories are qualified to conduct the work. The DOE shall assure that the lead regulatory agency (including contractor personnel) has access to laboratory personnel, equipment and records related to sample collection, transportation, and analysis.

#### ARTICLE XXXII. CREATION OF DANGER

106. If any Party determines that activities conducted pursuant to this Agreement are creating a danger to the health or welfare of the people on the Hanford Site or in the surrounding area or to the environment, that Party may require or order the work to stop. Any such work stoppage or stop work order shall be expeditiously reviewed by DOE and the affected lead regulatory

agency(s). Any dispute or nonconcurrence shall be immediately referred to the IAMIT level of the appropriate Dispute Resolution process.

107. If the affected Parties concur in the work stoppage, DOE's obligations shall be suspended and the time periods for performance of that work, as well as the time period for any other work dependent upon the work which was stopped, shall be extended, pursuant to Section 12.0 of the Action Plan of this Agreement, for such period of time equivalent to the time in which work was stopped, or as agreed to by the Parties.

#### ARTICLE XXXIII. NOTIFICATION

108. Unless otherwise specified, any report or submittal provided by DOE pursuant to a schedule or deadline identified in or developed under this Agreement (including the Action Plan) shall be sent by certified or overnight express mail, return receipt requested, or hand delivered as required to the address of the lead regulatory agency project manager.

109. Documents sent to the DOE by EPA or Ecology which require a response or activity by DOE pursuant to this Agreement shall be sent by certified or overnight express mail, return receipt requested, or hand delivered as required to the address of the DOE project manager.

#### ARTICLE XXXIV. RESERVED

110. Reserved

#### ARTICLE XXXV. SAMPLING AND DATA/DOCUMENT AVAILABILITY

111. The DOE shall transmit the results of laboratory analytical data and non-laboratory data collected pursuant to this Agreement to the lead

regulatory agency in an expeditious manner, as specified in Section 9.6 of the Action Plan.

112. DOE shall notify the lead regulatory agency not less than five (5) days in advance of any well drilling, sample collection, or other monitoring activity conducted pursuant to this Agreement.

#### ARTICLE XXXVI. RETENTION OF RECORDS

- 113. Each Party to this Agreement shall preserve for a minimum of ten (10) years after termination of this Agreement all of the records in its or its contractors possession related to sampling, analysis, investigations, and monitoring conducted in accordance with this Agreement. After this ten year period, DOE shall notify the EPA and Ecology at least forty-five (45) days prior to destruction or disposal of any such records. Upon request, the Parties shall make such records or true copies available, to the other Parties subject to Article XLV (Classified and Confidential Information).
- 114. DOE agrees it shall establish and maintain an administrative record at or near Hanford in accordance with CERCLA Sec. 113(k). The administrative record shall be established and maintained in accordance with current and future EPA policy and guidelines. A copy of each document placed in the administrative record will be provided to the lead regulatory agency.

#### ARTICLE XXXVII. ACCESS

by law, EPA, Ecology and/or their Authorized Representatives, shall have authority to enter the Hanford Site at all reasonable time for the purposes of, among other things: (1) inspecting records, operating logs, contracts and other documents relevant to implementation of this Agreement, subject to

Article XLV (Classified and Confidential Information); (2) reviewing the progress of DOE or its response action contractors in implementing this Agreement; (3) conducting such tests as the Ecology and the EPA project managers deem necessary; and (4) verifying the data submitted to EPA and Ecology by DOE. DOE shall honor all requests for access by EPA and Ecology, conditioned only upon presentation of proper credentials, conformance with Hanford Site safety and security requirement, and shall be conducted in a manner minimizing interference with any operations at Hanford. Any denial of consent to access must be justified in writing within fourteen (14) days of such denial, and arrangements shall be made for access to the facility or area in question as soon as practicable. DOE reserves the right to require EPA and Ecology personnel or representatives to be accompanied by an escort while on the Hanford Site. Escorts shall be provided in a timely manner.

not owned and controlled by DOE, DOE shall exercise its authorities to obtain access pursuant to Section 104(e) of CERCLA. DOE shall use its best efforts to obtain signed access agreements for itself, its contractors and agents, and EPA and Ecology and their contractors and agents, from the present owners or lessees in advance of the date such activities are scheduled to commence. DOE shall provide EPA and Ecology with copies of such agreements. With respect to non-DOE property upon which monitoring wells, pumping wells, treatment facilities, or other response actions are to be located, DOE shall use its best efforts to obtain access agreements that: provide that no conveyance of title, easement, or other interest in the property shall be consummated without provisions for the continued operation of such wells, treatment facilities, or other response actions on the property; and provide that the owners of any property where monitoring wells, pumping wells, treatment

facilities or other response actions are located shall notify DOE, Ecology, and EPA by certified mail, at least thirty (30) days prior to any conveyance, of the property owner's intent to convey any interest in the property and of the provisions made for the continued operation of the monitoring wells, treatment facilities, or other response actions installed pursuant to this Agreement.

#### ARTICLE XXXVIII. FIVE-YEAR REVIEW

Agreement, DOE agrees that the lead regulatory agency may review remedial action(s) for Operable Unit(s) that allow hazardous substances, pollutants or contaminants to remain onsite, no less often than every five (5) years after the initiation of the final remedial action for such Operable Unit to assure that human health and the environment are being protected by the remedial action being implemented. If upon such review it is the judgement of the lead regulatory agency, that additional action or modification of the remedial action is appropriate in accordance with CERCLA Sec. 104 or 106, the lead regulatory agency may require DOE to implement such additional or modified work pursuant to Article XXX (Additional Work).

#### ARTICLE XXXIX. MODIFICATION OF AGREEMENT

118. Procedures for modifying this Agreement are contained in Section 12 of the Action Plan.

#### ARTICLE XL. GOOD CAUSE FOR EXTENSIONS

- 119. Either a timetable and deadline or a schedule shall be modified upon receipt of a timely request for extension and when good cause exists for the requested extension.
  - 120. Good cause exists for an extension when sought in regard to:
- A. An event of force majeure as defined in Article XLVII (Force Majeure), subject to Ecology's reservation in Paragraph 147.
- B. A delay caused by another Party's failure to meet any requirement of this Agreement;
- C. A delay caused by the invocation of Dispute Resolution to the extent provided by paragraph 30(F) and paragraph 59(I) or judicial order.
- D. A delay caused, or which is likely to be caused, by the grant of an extension in regard to another timetable and deadline or schedule; and
- E. Any other event or series of events mutually agreed to by the Parties as constituting good cause.
- 121. Absent agreement of the lead regulatory agency with respect to the existence of good cause, DOE may seek and obtain a determination through the Dispute Resolution process that good cause exists.
  - 122. Reserved
- agency(s) that the requested extension is warranted, DOE shall extend the affected timetable and deadline or schedule accordingly. If there is no consensus among the DOE and the lead regulatory agency(s) as to whether all or part of the requested extension is warranted, the timetable and deadline or schedule shall not be modified except in accordance with the determination resulting from the Dispute Resolution process.

- 124. Within seven (7) days of receipt of one or more statements of nonconcurrence with the requested extension, or such other time period as agreed to by the DOE and the lead regulatory agency(s) in writing, DOE may invoke the Dispute Resolution process.
- 125. A timely and good faith request for an extension, in accordance with the procedures of Section 12.0 of the Action Plan, shall toll any assessment of stipulated penalties pursuant to Article XX (Stipulated Penalties) or any application for judicial enforcement of the affected timetable and deadline or schedule until a decision is reached on whether the requested extension will be approved. If Dispute Resolution is invoked and the requested extension is denied, stipulated penalties pursuant to Article XX (Stipulated Penalties) may be assessed and may accrue from the date of the original timetable, deadline or schedule. Following the grant of an extension, an assessment of stipulated penalties pursuant to Article XX (Stipulated Penalties) or an application for judicial enforcement may be sought only to compel compliance with the timetable and deadline or schedule as most recently modified.

#### ARTICLE XLI. CONVEYANCE OF TITLE

Hanford Site on which any containment system, treatment system, monitoring system or other response action(s) is installed or implemented pursuant to this Agreement shall be consummated by DOE without provision for continued maintenance of any such system or other response action(s). At least thirty (30) days prior to any conveyance, DOE shall notify EPA and Ecology of the provisions made for the continued operation and maintenance of any response action(s) or system installed or implemented pursuant to this Agreement.

#### ARTICLE XLII. PUBLIC PARTICIPATION

- proposed remedial action alternative(s) and subsequent plan(s) for remedial or corrective action or permitting/closure action at the Hanford Site arising out of this Agreement shall comply with the administrative record and, public participation requirements of CERCLA, including CERCLA Secs. 117 and 113(k), the NCP, and EPA guidance on public participation and administrative records, or the public participation requirements of RCRA and Ch. 70.105 RCW.
- (CRP) which responds to the need for an interactive relationship with all interested community elements, both on and off Hanford, regarding activities and elements of work undertaken by DOE under this Agreement. DOE agrees to develop and implement the CRP in a manner consistent with CERCLA Sec. 117, the NCP, EPA guidelines set forth in EPA's Community Relations Handbook, and any modifications thereto, and the public participation requirements of RCRA and Ch. 70.105 RCW. The CRP is subject to the review and approval by EPA and Ecology under Article XV (Review of Documents).
- 129. The public participation requirements of this Agreement shall be implemented so as to meet the public participation requirements applicable to RCRA permits under 40 CFR Part 124 and RCRA Sec. 7004.

#### ARTICLE XLIII. <u>DURATION/TERMINATION</u>

action phase as described in Section 7 of the Action Plan for a given Operable Unit, the lead regulatory agency shall issue a Notice of Completion to DOE for that Operable Unit. At the discretion of the lead regulatory agency, a Notice

of Completion may be issued for completion of a portion of the remedial or corrective action for an Operable Unit.

- 131. This Agreement shall terminate when DOE has satisfactorily completed all work pursuant to this Agreement and the Action Plan or when the Parties unanimously agree to termination.
- 132. The Parties agree that due to the long-term commitments contained in this Agreement, this Agreement will be reviewed by the Parties five (5) years from the date of execution of this Agreement, and at the conclusion of every five (5) year period thereafter. The purpose of this review will be to determine (1) whether there has been substantial compliance with the terms of the Agreement and, (2) the need to modify the Agreement. This review will be made by a committee composed of representatives from each Party. Modifications to the Agreement will be made in accordance with Section 12.0 of the Action Plan. If the Parties do not unanimously agree that there has been substantial compliance with the terms of the Agreement, EPA and Ecology reserve the right to withdraw from the Agreement; provided, however, that all Parties shall comply with all provisions of this Agreement from the effective date of the Agreement to the date of the withdrawal. Further provided, however, that no Party may base its withdrawal from this Agreement on its own substantial noncompliance with this Agreement. Regardless of any Party's withdrawal under this paragraph, all parties shall comply with all provisions of this Agreement as they relate to operable units where a remedial investigation or RCRA facility investigation workplan has already been approved, unless the Parties agree otherwise. Any Party withdrawing from this Agreement shall notify the other Parties in writing.

#### ARTICLE XLIV. SEVERABILITY

133. If any provision of this Agreement is ruled invalid, illegal or unconstitutional, the remainder of the Agreement shall not be affected by such ruling.

#### ARTICLE XLV. CLASSIFIED AND CONFIDENTIAL INFORMATION

- requirements of the Atomic Energy Act of 1954, as amended, and all Executive Orders concerning the handling of unclassified controlled nuclear information, restricted data and national security information, including "need to know" requirements, shall be applicable to any access to information or facilities covered under the provisions of this Agreement. EPA and Ecology reserve their right to seek to otherwise obtain access to such information or facilities when it is denied, in accordance with applicable law.
- contractor, subcontractor or consultant, a business confidentiality claim or privilege covering all or any part of the information requested by this Agreement, pursuant to 42 U.S.C. Sec. 9604 and state law. Analytical data shall not be claimed as business confidential. Parties are not required to provide legally privileged information. At the time any information is furnished which is claimed to be business confidential, all Parties shall afford it the maximum protection allowed by law. If no claim of business confidentiality accompanies the information, it may be made available to the public without further notice.

#### ARTICLE XLVI. RESERVATION OF RIGHTS

- performed under this Agreement are in the public interest. EPA and Ecology agree that compliance with this Agreement shall stand in lieu of any administrative and judicial remedies against DOE and its contractors, which are available to EPA and Ecology regarding the currently known release or threatened release of hazardous substances, hazardous wastes, pollutants or contaminants at the Hanford Site which are the subject of the activities being performed by DOE under Articles VII (Work) and XIV (Work). Provided, that nothing in this Agreement, except as provided in paragraphs 38 and 80 on stipulated penalties, shall preclude EPA or Ecology from the direct exercise of (without employing dispute resolution) any administrative or judicial remedies available to them under the following circumstances:
- A. In the event or upon the discovery of a violation of, or noncompliance with this Agreement, or any provision of CERCLA, RCRA or Ch. 70.105 RCW, not addressed by this Agreement.
- B. Any discharge or release of hazardous waste which the Parties choose not to address under this Agreement.
- C. Upon discovery of new information regarding hazardous substances or hazardous waste management, including but not limited to, information regarding releases of hazardous waste or hazardous substances to the environment which the Parties choose not to address under this Agreement.
- D. Upon Ecology's or EPA's determination that action beyond the terms of this Agreement is necessary to abate an imminent and substantial endangerment to the public health or welfare or the environment.
- 137. In the event of any action by EPA or Ecology under Paragraph
  136 to address matters not covered in this Agreement, DOE reserves all rights

and defenses available under law. In the event of any action by EPA or Ecology under Paragraph 136 to address matters covered in this Agreement, DOE reserves all rights and defenses specified in this Agreement.

- Agreement shall constitute or be construed as a bar or release from any claim, cause of action or demand in law or equity by or against any person, firm, partnership or corporation not a signatory to this Agreement for any liability it may have arising out of or relating in any way to this Agreement or the generation, storage, treatment, handling, transportation, release, or disposal of any hazardous substances, hazardous wastes, hazardous constituents, pollutants, or contaminants found at, taken to, or taken from the Hanford Site.
- addressed in Part Four, and are unable to resolve such dispute after pursuing dispute resolution pursuant to the dispute resolution procedures set forth in Part Four, the releases or actions which are the subject of the dispute shall be deemed matters which are not addressed under this Agreement. Thereafter, EPA, Ecology, and DOE may take any action with regard to such matters which would be appropriate in the absence of this Agreement, and each party reserves its rights to assert and defend its respective legal position in connection with any such actions.
- 140. EPA and Ecology shall not be held as a Party to any contract entered into by DOE to implement the requirements of this Agreement.
- 141. For matters within the scope of this Agreement, Ecology, and EPA reserve the right to bring any enforcement action against DOE's contractors, subcontractors and/or operators, if DOE fails to comply with this Agreement. For matters outside the scope of this Agreement, Ecology and EPA

reserve the right to bring any enforcement action against DOE's contractors, subcontractors and/or operators, regardless of DOE's compliance with this Agreement.

- 142. This Agreement shall not be construed to limit in any way the right provided by law to the public or any citizen to obtain information about the work to be performed under this Agreement or to sue or intervene in any action to enforce state or federal law.
- 143. Except as provided herein, DOE is not released from any liability which it may have pursuant to any provisions of state and federal law, including any claim for damages for liability to destruction of, or loss of natural resources.
- 144. This Agreement shall not restrict EPA and/or Ecology from taking any legal or response action for any matter not specifically part of the work covered by this Agreement.

#### ARTICLE XLVII. FORCE MAJEURE

- 145. A Force Majeure shall mean any event arising from causes beyond the control of a Party that causes a delay in or prevents the performance of any obligation under this Agreement, including, but not limited to:
- A. acts of God, fire, war, insurrection, civil disturbance, or explosion;
- B. unanticipated breakage or accident to machinery, equipment or lines of pipe despite reasonably diligent maintenance;
- C. adverse weather conditions that could not be reasonably anticipated, or unusual delay in transportation;
  - D. restraint by court order or order of public authority;

- E. inability to obtain, at reasonable cost and after exercise of reasonable diligence, any necessary authorizations, approvals, permits or licenses due to action or inaction of any governmental agency or authority other than DOE;
- F. delays caused by compliance with applicable statutes or regulations governing contracting, procurement or acquisition procedures, despite the exercise of reasonable diligence; and
- G. insufficient availability of appropriated funds, if DOE shall have made timely request for such funds as part of the budgetary process as set forth in Article XLVIII (Cost, Schedule, Scope, Integration, Planning and Reporting) of this Agreement.
- 146. A Force Majeure shall also include any strike or other labor dispute, whether or not within the control of the Parties affected thereby. Force Majeure shall not include increased cost or expenses of response actions, whether or not anticipated at the time such response actions were initiated.
- 147. DOE and Ecology agree that Subparagraph B (entirely), Subparagraph C ("delay in transportation"), Subparagraph D ("order of public authority"), Subparagraph E ("at reasonable cost"), and Subparagraph G (entirely), of Paragraph 145 do not create any presumptions that such events arise from causes beyond the control of a Party. Ecology specifically reserves the right to withhold its concurrence to any extensions which are based on such events pursuant to the terms of Article XL, or to contend that such events do not constitute Force Majeure in any action to enforce this Agreement.

#### ARTICLE XLVIII. COST, SCHEDULE, SCOPE, INTEGRATION, PLANNING AND REPORTING

- 148. DOE shall take all necessary steps to integrate Hanford programs and to obtain timely funding in order to fully meet its obligations under this Agreement. This shall be accomplished in the following manner:
- A. In its annual budget request, DOE shall include estimated funding levels required to achieve full compliance with this Agreement.
- B. In the process of formulating its annual budget request, DOE may be subject to target funding guidance directed by the OMB. When DOE's target budget case differs from its full compliance funding case, the Parties agree to attempt to reach agreement regarding workscope, priorities, schedules/milestones, and Activity Data Sheet (ADS) funding levels required to accomplish the purpose of the Agreement, provided satisfactory progress has been made in controlling costs in accordance with the cost efficiency initiatives. These discussions shall be conducted before DOE-RL submits its annual budget request and supporting ADSs to DOE Headquarters (DOE-HQ) under signature of the DOE-RL manager.
- C. DOE-RL will submit its budget request with detailed ADSs, identifying both target and compliance funding levels, to DOE-HQ and identify any unresolved issues raised by Ecology and EPA. If these issues are not subsequently resolved prior to DOE's submission of its budget request to OMB, DOE-HQ will also identify these issues and the funding required for compliance to OMB.
- D. In determining the workscope, priorities, and schedules, the Parties shall consider the values expressed by the Hanford stakeholders.
- E. The Parties recognize that successful implementation of this Agreement is dependent upon the prudent use of resources, and that resource requirements and constraints should be considered during the work planning,

budget formulation, and budget execution process. To ensure the development of responsible budget requests, consistent with the requirements of this Agreement and applicable federal/state statutes, the Parties will work cooperatively and in good faith.

- 149. The purpose of this paragraph is to establish a mechanism that will help assure adequate progress toward meeting the requirements of this Agreement. It provides for communication and consultation on work scope, priorities, schedules/milestones, and cost/funding matters. It further provides a means for performance measurement and for early identification of problems which could jeopardize compliance with the schedules and milestones of the Agreement.
- A. Within two weeks after DOE Headquarters (DOE-HQ) issuance of Environmental Management planning and/or budget guidance, including target level funding guidance, to the Richland Operations Office (DOE-RL), DOE-RL shall provide a copy of it to Ecology and EPA along with a preliminary assessment of its impacts. DOE-RL shall also provide a copy of its initial contractor budget guidance to Ecology and EPA within two weeks after issuance.
- B. EPA and Ecology agree not to release confidential budget information to any other entities prior to submission by the President of his budget request to Congress, unless authorized by DOE or required to do so by court order. DOE shall seek to intervene in any proceeding brought to compel or enjoin the release of this information. If allowed to intervene, DOE shall assert its interest in, and the legal basis for, maintaining the confidentiality of this information.
- C. As soon as possible after DOE-HQ issuance of its initial planning guidance but no later than two weeks prior to DOE-RL's submission of its budget request and supporting Activity Data Sheets to DOE-HQ, Ecology and

EPA shall be given: 1) a management level briefing at the ADS level on the budget, including an integrated sitewide assessment of impacts on the requirements of this Agreement; and 2) the opportunity to review, comment and make integrated recommendations on that budget request, including workscope, priorities, schedules/milestones, and five year target and compliance cost/funding projections. DOE-RL shall, to the extent it deems appropriate, revise its budget request and ADSs, including workscope, to address or resolve Ecology and EPA comments prior to transmittal to DOE-HQ. DOE-RL shall notify DOE-HQ in its budget request of any comments not fully resolved to the satisfaction of all Parties, and shall identify full compliance funding levels.

- D. Within 30 days after the President's submission of the budget to Congress, DOE-RL shall brief Ecology and EPA on the President's budget request at the ADS level detail. At this briefing, DOE-RL shall notify Ecology and EPA of any differences between the target and compliance case workscope and cost/funding levels submitted in accordance with subparagraph C. above, and the actual workscope and funding levels included in the President's budget request to Congress. DOE-RL shall also provide Ecology and EPA its assessment of the impacts such differences may have on DOE's ability to meet milestones or satisfy other requirements of this Agreement.
- E. DOE shall notify and discuss with Ecology and EPA, prior to transmittal to OMB, any budget amendment, supplemental appropriation request or reprogramming request and any corresponding impacts upon the workscope, and schedules, and DOE's ability to meet milestones or other requirements of this Agreement with and without the amendment, supplemental appropriation or reprogramming request.

- F. Within 30 days after congressional budget appropriation, DOE-RL shall brief Ecology and EPA on the budget appropriation and subsequent funding allocations for the new fiscal year at ADS level detail. If there is a delay in congressional appropriation after the start of the fiscal year, DOE-RL shall inform Ecology and EPA of any congressional continuing resolution action, and the potential impacts, if any, on progress to achieve milestones and other requirements of the Agreement. Ecology and EPA will be given timely opportunity to review and comment on these budget appropriation and funding allocation actions, and to make recommendations for reallocation of available funds.
- G. If the congressional budget appropriation differs from the funding levels required to comply with any milestones or other requirements of the Agreement, DOE-RL shall take whatever action is appropriate under the Agreement. Such action may include submitting a change request in accordance with the Action Plan, Section 12.0 entitled Changes to the Agreement. The Parties shall attempt to reach agreement on adjustments in workscope or milestones consistent with the congressional appropriation which will minimize impacts on the requirements of this Agreement. If agreement cannot be reached, Ecology and EPA reserve the right to take appropriate action as provided for in this Agreement.
- H. Ecology, DOE, and EPA Executive Managers shall meet periodically throughout the budget execution year to discuss the status of projects to be funded for the current fiscal year, the integration of programs, and events that have affected, or may affect milestones or activity within such milestones.
- I. In order to ensure continuing, effective and timely interface between DOE, Ecology and EPA regarding work scope planning/scheduling, program

integration, budget/funding, current year performance status, milestone tracking, and notification of problem areas, DOE shall, unless otherwise agreed to, provide the following, or their equivalent, to EPA and Ecology:

- Annual Multi-Year Program Plans, including ADS level funding projections, as soon as possible after their development;
- 2. Annual Fiscal Year Work Plans, including ADS level funding profiles, as soon as possible after start of each fiscal year;
- 3. The monthly Approved Funding Plan (AFP), at ADS level detail, within two weeks following the start of each month;
- 4. Monthly Site Management System (SMS) reports shall be provided to EPA and Ecology to identify: any anticipated delays in meeting time schedules, the reason(s) for such delay and actions taken to prevent or mitigate the delay, and any potential problems that may result in a departure from the requirements and time schedules. In accomplishing this, the SMS reports shall, as a minimum, include for each program: monthly and cumulative budget, actual monthly and cumulative costs, performance measurement information including explanations of cost/schedule variances, progress in achievement of milestones, and notification of problems and program/project delays. The appropriate contractor program manager's shall sign the monthly SMS report. The signature block shall contain the statement: "The information contained within this report is complete and accurate to the best of my knowledge." At the monthly milestone review meetings, the appropriate DOE project managers will provide DOE's assessment of milestone progress and the extent to which DOE agrees or disagrees with the preceding month's SMS report. The assessment will be documented in meeting minutes signed by DOE and the lead regulatory agency. With regard to these assessments, signature of the minutes by Ecology and EPA shall indicate only that the assessment information

was provided by DOE. The monthly SMS report shall also be placed in the Public Information Repositories as identified in Section 10.2 of the Action Plan.

- 5. Upon request, EPA and Ecology shall be provided access to available information below the ADS level of detail.
- J. During the budget execution year, DOE-RL shall notify Ecology and EPA of any proposed action to internally reallocate funding at ADS levels, if such an action significantly affects workscope and schedules.
- K. Within 30 days following the completion of DOE's annual midyear management review (approximately April-May of each year), DOE-RL shall brief Ecology and EPA on any decisions that significantly affect milestones under this Agreement.
- L. As soon as possible following the end of each federal fiscal year, DOE-RL shall provide to EPA and Ecology the fiscal year-end SMS report, and a summary briefing on the amount of funds that have been obligated and spent during the fiscal year ended and the work that has been performed. This summary shall include, at ADS level detail, actual versus planned expenditures for the fiscal year end; a summary of carryover amounts including those available for expenditures in the following budget execution year; and summaries/information explaining the extent of work planned versus work completed or performed during the year.
- M. The three parties agree to inform and involve the public and stakeholders at key stages of integrated (cross programmatic) decision making, and at key stages of budget formulation and execution consistent with the <a href="Interim Report of the Federal Facilities Environmental Restoration Dialogue">Interim Report of the Federal Facilities Environmental Restoration Dialogue</a> <a href="Committee">Committee</a>. The process for informing and involving the public and stakeholders will be developed and included in the Agreement CRP.

- N. The participation by Ecology and EPA in DOE's planning and budget formulation and execution process shall not affect DOE's authority over its budgets and funding level submission.
- U.S.C. Sec. 9620(e)(5)(B), DOE shall include in its annual report to Congress the specific cost estimates and budgetary proposals associated with the implementation of this Agreement.
- 151. If appropriated funds are not available to fulfill DOE's obligations under this Agreement, EPA and Ecology reserve the right to initiate any other action which would be appropriate absent this Agreement.
- obligation of funds, including stipulated penalties under Article XX (Stipulated Penalties) of this Agreement, by DOE established by the terms of this Agreement shall be subject to the availability of appropriated funds, and no provision herein shall be interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act, 31 U.S.C. Sec. 1341. In cases where payment or obligation of funds would constitute a violation of the Anti-Deficiency Act, the dates established requiring the payment or obligation of such funds shall be appropriately adjusted.
- obligations under this Agreement, the Parties shall attempt to agree upon appropriate adjustments to the workscope or milestones which require the payment or obligation of such funds. If no agreement can be reached then Ecology and DOE agree that in any action by Ecology to enforce any provision of this Agreement, DOE may raise as a defense that its failure or delay was caused by the unavailability of appropriated funds. Ecology disagrees that lack of appropriations or funding is a valid defense. However, DOE and

Ecology agree and stipulate that it is premature at this time to raise and adjudicate the existence of such a defense. Acceptance of this Paragraph 153 does not constitute a waiver by DOE that its obligations under this Agreement are subject to the provisions of the Anti-Deficiency Act, 31 U.S.C. Sec. 1341.

#### ARTICLE XLIX. COMPLIANCE WITH APPLICABLE LAWS

shall be taken in accordance with the requirements of all applicable federal and state laws and regulations. All Parties acknowledge that such compliance may impact schedules to be performed under this Agreement. Extensions of schedules shall be granted for good cause as provided in Article XL and in accordance with the procedures specified in Section 12.0 of the Action Plan.

155. In any judicial challenge arising under this Agreement the court shall apply the law in effect at the time of the challenge, including any amendments to RCRA or CERCLA enacted after entry of this agreement. Where the law governing this agreement has been amended or clarified, any provision of this agreement which is inconsistent with such amendment or clarification shall be modified to conform to such change or clarification.

#### ARTICLE L. EFFECTIVE DATE

156. This Agreement is effective upon signature by all Parties.

#### ARTICLE LI. ATTACHMENT 1

Attachment 1 to this Agreement is a letter dated February 26, 1989, from Donald Carr, Acting Assistant Attorney General, Land and Natural Resources Division, U.S. Department of Justice, to Christine Gregoire, Director,

Department of Ecology. This letter sets forth the Department of Justice's position on the enforceability of this Agreement.

#### IT IS SO AGREED:

Each undersigned representative of a Party certifies that he or she is fully authorized to enter into this Agreement and to legally bind such Party to this Agreement.<sup>1</sup>

THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY:

THE UNITED STATES DEPARTMENT OF ENERGY:

THE WASHINGTON STATE DEPARTMENT OF ECOLOGY

The first amendment to the Agreement was signed in August 1990, by: Thomas P. Dunne, Acting Regional Administrator, Region 10, for the U.S. Environmental Protection Agency; Edward S. Goldberg, Acting for John D. Wagoner, Manager, Richland Operations Office, for the U.S. Department of Energy; and, Christine O. Gregoire, Director, for the Washington State Department of Ecology.

The second amendment to the Agreement was signed in September 1991, by: Dana A. Rasmussen, Regional Administrator, Region 10, for the U.S. Environmental Protection Agency; John D. Wagoner, Manager, Richland Operations Office, for the U.S. Department of Energy; and Christine O. Gregoire, Director, for the Washington State Department of Ecology.

The third amendment to the Agreement was signed in August 1992, by: Dana A. Rasmussen, Regional Administrator, Region 10, for the U.S. Environmental Protection Agency; John D. Wagoner, Manager, Richland Operations Office, for the U.S. Department of Energy; and Chuck Clarke, Director, for the Washington State Department of Ecology.

The fourth amendment to the Agreement was signed in January 1994, by: Gerald Emison, Acting Regional Administrator, Region 10, for the U.S. Environmental Protection Agency; John D. Wagoner, Manager, Richland Operations Office, for the U.S. Department of Energy; and Mary Riveland, Director, for the Washington State Department of Ecology.

<sup>&</sup>lt;sup>1</sup>The Hanford Federal Facility Agreement and Consent Order signed May 15, 1989, was originally executed by: Robie G. Russel, Regional Administrator, Region 10, for the U.S. Environmental Protection Agency; Michael J. Lawrence, Manager, Richland Operations Office, for the U.S. Department of Energy; and, Christine O. Gregoire, Director, for the Washington State Department of Ecology.

The fifth amendment to the Agreement was signed in July 1995, by: Charles Findley acting for Charles Clarke Regional Administrator, Region 10, for the U.S. Environmental Protection Agency; Ronald Izatt acting for John Wagoner, Manager, Richland Operations Office, for the U.S. Department of Energy; and Terry Husseman acting for Mary Riveland, Director, for the Washington State Department of Ecology.

The sixth amendment to the Agreement was signed in February 1996, by: Charles Clarke, Regional Administrator, Region 10, for the U.S. Environmental Protection Agency; John Wagoner, Manager, Richland Operations office, for the U.S. Department of Energy; and Mary Riveland, Director, for the Washington State Department of Ecology.



# U.S. Department of Justice Land and Natural Resources Division

#### ATTACHMENT 1

Office of the Assistant Attorney General

Washington, D.C. 20530

February 26, 1989

Ms. Christine Gregoire
Director, Washington State
Department of Ecology
MSPV-11
Olympia, Washington 98504

Dear Ms. Gregoire:

You have asked the Department of Justice to review certain provisions of the proposed agreement between the U.S. Department of Energy, U.S. Environmental Protection Agency, and the Washington State Department of Ecology with regard to the Hanford facility. We agree that DOE and EPA have the authority to enter into this agreement, and that the agreement is binding and enforceable, in accordance with Article I, paragraph 10 of Article II, Article IV, Article IX, Article XX, and Article XXVII of the agreement, by the State of Washington and any affected citizens. The CERCIA provisions of this agreement are enforceable pursuant to section 310 of CERCIA. The RCRA provisions of this agreement are enforceable pursuant to section 7002 of RCRA.

As with consent decrees, which establish a process for remedy selection but do not resolve all cleanup issues, the Hanford agreement establishes a process to address future cleanup issues. Also just like consent decrees, the Hanford agreement contains a dispute resolution mechanism as well as procedures for seeking judicial review of conflicts which may arise concerning future decisions.

Accordingly, we believe that resolution of remediation and compliance problems at Hanford through such an agreement should be encouraged. In fact, we believe that the agreement is a superior venicle for resolving DOE's cleanup and compliance obligations and therefore should be favored over more time-consuming litigation. The agreement has the advantage of being enforceable by any "person", whereas a consent decree is generally enforceable only by the parties to the litigation. Furthermore, the agreement allows for a more comprehensive resolution than a consent decree, since the latter must be very

narrowly tailored to meet concerns over jurisdiction and precedent. Therefore, we support your efforts to resolve environmental concerns at Hanford through the use of such this agreement.

Recognizing the concerns that the state has raised with respect to the enforceability of this proposed agreement, I understand that this letter will be attached to the Hanford agreement.

Sincerely yours,

ronally Can

Donald A. Carr

Acting Assistant Attorney General Land and Natural Resources Division

c: R. Russell M. Lawrence

#### ATTACHMENT 2

#### **ACTION PLAN**

#### FOR IMPLEMENTATION OF THE

# HANFORD CONSENT ORDER AND COMPLIANCE AGREEMENT BETWEEN

THE U.S. ENVIRONMENTAL PROTECTION AGENCY,
THE U.S. DEPARTMENT OF ENERGY,

AND

THE STATE OF WASHINGTON DEPARTMENT OF ECOLOGY

AS AMENDED, SEPTEMBER 1990

SEPTEMBER 1991

AUGUST 1992

JANUARY 1994

JULY 1995

FEBRUARY 1996

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# **EXECUTIVE SUMMARY**

# FOR HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER ACTION PLAN

This Action Plan is an attachment to the Hanford Federal Facility Agreement and Consent Order (hereafter referred to as the "Agreement") between the U.S. Department of Energy (DOE), U.S. Environmental Protection Agency (EPA), and the State of Washington Department of Ecology (Ecology). The Agreement is the legal document that binds DOE to actions to comply with the Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and the State of Washington Hazardous Waste Management Act (HWMA).

# THE HANFORD SITE

The Hanford Site was acquired by the Federal Government in 1943 for the construction and operation of facilities to produce plutonium for World War II. The site encompasses approximately 560 square miles within the Columbia River Basin. For over 20 years, Hanford facilities were primarily dedicated to the continuation of plutonium production for national defense and managing the wastes generated. In later years, programs at Hanford have become increasingly diverse, involving research and development for advanced reactors and renewable energy technologies. Currently DOE plans to phase out the defense production missions of Hanford, with the new emphasis of the Site being research and development, cleanup of waste units resulting from past operations, and achieving compliance with Federal and State laws.

# Treatment, Storage and Disposal Operations

The Hanford Site has and will continue to provide for the Treatment, Storage and Disposal of hazardous and mixed wastes. Mixed wastes are those which contain both hazardous waste (i.e. chemical) and radioactive waste. In 1984, Congress amended RCRA, imposing, among other things, additional restrictions on hazardous waste storage and disposal activities. The analogous HWMA imposes similar restrictions. These restrictions have been referred to as the Land Disposal Restrictions (LDR). Some of the mixed wastes which are stored at Hanford are subject to LDR and cannot be land disposed until the wastes are treated in accordance with LDR regulations, or a variance is granted. These wastes are stored in underground tanks or in other mixed waste units.

At present, DOE does not have the capability to treat all of the LDR mixed wastes at Hanford in accordance with LDR, and until such treatment occurs, disposal is prohibited. The mixed waste treatment systems which are currently available and treatment systems which are planned for the future must satisfy prescribed LDR treatment requirements. Until treatment systems capable of treating the mixed waste to meet the LDR treatment standards become available for Hanford wastes, storage of existing wastes and wastes which will be generated will continue. However, such storage will be in accordance with an approved plan for the management of LDR mixed waste.

In addition to restrictions on land disposal, these LDR requirements also include specific conditions for storage of LDR wastes. The DOE will submit schedules to develop and construct waste treatment systems necessary to achieve compliance with LDR storage requirements, which shall become effective upon approval by Ecology.

There are over 50 Treatment, Storage or Disposal (TSD) Groups on the Hanford Site which must be permitted and/or closed in accordance with RCRA and the State of Washington HWMA. A group represents one or more TSD units and reflects the level at which a Part B application and/or closure plan will be developed. These units range significantly in complexity from the closure of the single-shell tanks to the permitting of an individual treatment tank within a production facility. Ecology has the primary authority for issuing a final operating permit to the DOE. Until such time, the DOE continues to operate its TSD units under interim status regulations.

#### Past-Practices

As previously noted, the Hanford Site has been in operation since the mid-1940's. These operations have resulted in approximately 1000 past-practice units that must be investigated and, if necessary, cleaned up. A past-practice unit is a waste management unit where wastes have been disposed (intentionally or unintentionally), and that is not subject to regulation as a TSD Unit.

The majority of the past-practice units on the Hanford Site contain mixed wastes (i.e., wastes containing both radioactive wastes and hazardous wastes). The remaining units contain only radioactive wastes or hazardous wastes, or are considered non-radioactive and non-hazardous. A large percentage of these waste units are either solid waste burial grounds or liquid disposal units, such as cribs, ponds, and ditches.

The groundwater beneath the Hanford Site has been contaminated as a result of these past-practices. Current data show tritium and nitrate to be the most widespread contaminates in the groundwater. Chromium, cyanide, and carbon tetrachloride are some of the hazardous chemicals which have been detected in the groundwater near operating areas.

# REGULATORY AUTHORITIES

# Resource Conservation and Recovery Act

RCRA was enacted by Congress in 1976. It requires "cradle to grave" management of hazardous waste by all generators, transporters, and owners/operators of treatment, storage, and disposal facilities handling hazardous wastes. A major goal of RCRA is to reduce the generation of hazardous waste.

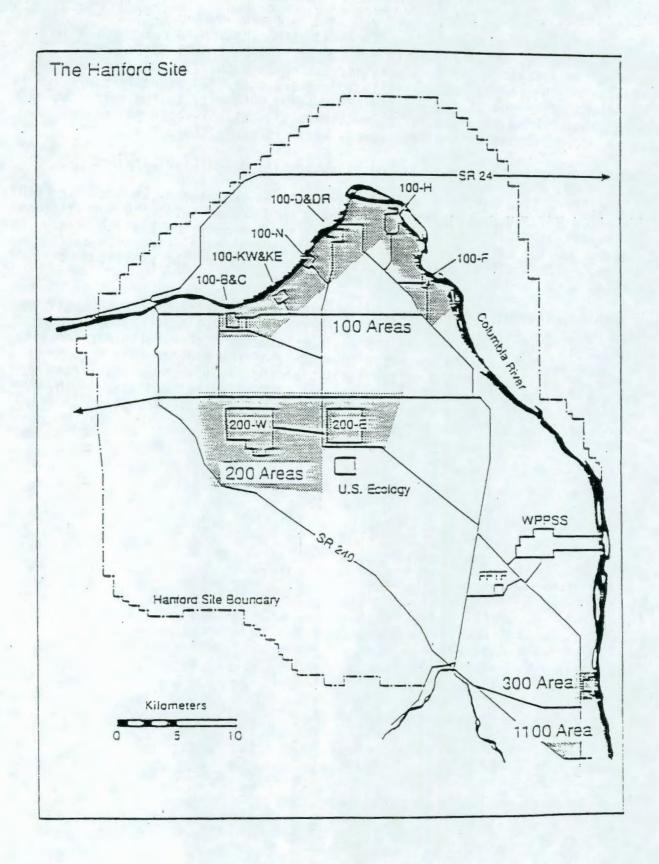
The Department of Ecology has the authority to carry out the RCRA Program in Washington through its own dangerous waste management program. Washington State regulations for dangerous waste management are substantially similar to, but more restrictive in some cases than, the RCRA regulations.

The State of Washington has received authorization to carry out a portion of the Hazardous and Solid Waste Amendments of 1984 (HSWA) including corrective actions. For that portion, Ecology's authorized program operates in lieu of the Federal requirements. However, some HSWA provisions are yet to be delegated to the state, and the EPA retains authority to implement those provisions. HSWA provides for corrective action at all waste management units, irrespective of the date wastes were placed in the units.

# Comprehensive Environmental Response, Compensation and Liability Act

CERCLA, also referred to as "Superfund", was enacted by Congress in 1980. Its purpose is to provide both funding and enforcement authority for cleaning up contaminated waste sites that have been created over the past decades. The funding portion of CERCLA does not apply to Federal facilities such as Hanford. EPA has been given authority for carrying out the provisions of CERCLA.

A key element for application of the cleanup provisions of CERCLA is the listing of a site on the National Priorities List (NPL). A Preliminary Assessment/Site Inspection (PA/SI) was completed in 1987 for the Hanford Site. On June 24, 1988 the EPA nominated four areas of the Hanford Site for inclusion on the NPL based on the results of the PA/SI. These four areas were officially listed on the NPL on November 3, 1989 (Federal Register 41015, October 4, 1989). These are the 100 Areas, 200 Areas, 300 Area, and 1100 Area as shown on the following map of the Hanford Site.



# FEDERAL FACILITY AGREEMENT AND CONSENT ORDER

The Agreement is the legal document covering Hanford Site environmental compliance and cleanup. The general purposes of the Agreement are:

- To ensure that the environmental impacts associated with past and present activities at the Hanford Site are thoroughly investigated and that appropriate response actions are taken as necessary to protect the public health, welfare, and the environment;
- To provide a framework for permitting TSD units and to promote an orderly, effective investigation and cleanup of contamination at the Hanford Site;
- To ensure compliance with RCRA and the Washington Hazardous Waste Management Act for TSD units including requirements covering permitting, interim status, land disposal restrictions, closure, and post-closure care;
- To establish a procedural framework for developing, prioritizing, implementing, and monitoring appropriate response actions at the Hanford Site in accordance with CERCLA, the National Contingency Plan (NCP), Superfund guidance and policy, and RCRA guidance and policy;
- To facilitate cooperation, exchange of information, and the coordinated participation of the parties in such actions; and
- · To minimize the duplication of analysis and documentation.

The Legal Agreement contains five parts: Part One contains introductory provisions; Part Two contains provisions governing hazardous waste treatment, storage, and disposal, facility compliance, permitting, closure, and post-closure activities; Part Three contains provisions governing remedial and corrective action activities; Part Four addresses the regulatory interfaces between EPA and the Ecology; and Part Five provides common provisions which apply to both Parts Two and Three. In addition, the Agreement delineates authorities, identifies enforcement provisions and provides for dispute resolution among the parties. This Action Plan is an attachment to the Federal Facility Agreement and Consent Order.

# ACTION PLAN

This Action Plan, as an enforceable part of the Agreement, provides the methods and procedures, and establishes the plans for (1) compliance, permitting, and closure under RCRA and the Washington State Hazardous Waste Management Act, and (2) cleanup of the Hanford Site under CERCLA and RCRA corrective action provisions.

# Major Milestones

The master plan and schedules for Action Plan work are found in Section 2.0, Milestones. These major milestones contain enforceable commitments for the most significant actions in the Action Plan, including:

- Closure of the Hanford single-shell tanks and final disposal of all tank wastes;
- Investigation and cleanup of all contamination at operable units;
- Permitting and closure of treatment, storage, and disposal units;
- Ceasing disposal of all contaminated liquids to soils; and
- · Operation of the High-Level Waste Vitrification Plant.

# Unit Identification, Categorization, and Prioritization

The approximately 55 TSD groups on the Hanford Site are identified in Appendix B as those which will continue to operate, and those which are to be closed. Actions associated with these TSD groups have been prioritized on the work schedules based on (1) the risk to public health and environment, (2) benefits received in minimizing wastes in terms of volume and toxicity, and (3) operational considerations.

Approximately 1000 past-practice units are identified in Appendix C. They have been grouped into approximately 74 operable units for the purposes of investigation and cleanup. An operable unit is a grouping of individual waste units based primarily on geographic area and common waste sources. The operable units are prioritized for investigation based on an initial assessment of environmental risk potential. The assessment considers waste volume, hazardous substances and their toxicity or health effects, and the potential for migration of these substances.

# Project Managers

EPA, DOE, and Ecology have designated individuals who will serve as project manager who will have the primary responsibility for all activities to be carried out in regard to their assigned operable unit, TSD group/unit or milestone under the Action Plan.

Project managers will conduct monthly meetings concerning their respective areas of responsibility. These meetings will address status and problem areas. The goal is to maximize communication among the three parties.

# Integration of RCRA and CERCLA

RCRA and CERCLA overlap in many areas. RCRA and CERCLA both require corrective action for releases regardless of time of release. RCRA regulated wastes are also regulated under CERCLA. Many of the RCRA disposal units on the Hanford Site which are scheduled for closure are located in close proximity to past-practice units. These TSD units have been incorporated into the appropriate operable unit with the past-practice units so that integrated investigation and cleanup actions result. These TSD units will be closed

under the authority of RCRA, generally in coordination with the past-practice activities. In order to streamline the interface between RCRA and CERCLA authorities within an operable unit, the past-practice units contained within an operable unit will all be designated as either RCRA corrective action units or CERCLA units.

# Lead Regulatory Agency Concept

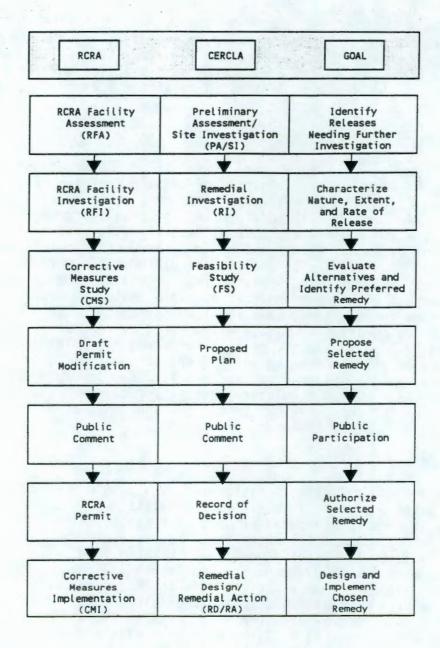
Legal authority for regulatory oversight of DOE's actions may rest with either EPA, Ecology, or a combination of EPA and Ecology. The involvement of both EPA and Ecology throughout completion of a particular milestone, however, is in most cases not an efficient process for regulatory oversight. Therefore, EPA and Ecology will use a "lead regulatory agency" approach to minimize duplication of effort and maximize productivity. In most cases, either EPA or Ecology will be the lead regulatory agency for an operable unit, TSD group/unit or milestone. The non lead regulatory agency will not assign staff to oversee work regarding that operable unit, TSD group/unit or milestone even though it may have legal authority to do so. Staff from the lead regulatory agency will manage all aspects of regulatory oversight, which are covered by this Agreement, on their assigned operable units, TSD groups/units or milestones, including preparation of decision documents and briefings to senior management of the non lead regulatory agency where final approval by the non lead regulatory agency is required. The decision of which agency is lead for each operable unit, TSD group/unit or milestone will be jointly made by EPA and Ecology.

# RCRA Permitting

Since the Hanford Site is designated as a single RCRA facility one hazardous waste permit will be issued and maintained, and will address the treatment, storage and disposal of hazardous wastes. The initial permit will be issued for less than the entire facility, recognizing that not all of the TSD groups will be ready for a permit at the same time. Then the permit will be modified over time to incorporate additional TSD groups. The permit will also incorporate the cleanup actions selected for those past-practice units addressed under RCRA corrective action provisions. The permit will also address post-closure care requirements for those TSD units which have been closed, including those closed in conjunction with a past-practice operable unit.

#### Remedial and Corrective Action

Either the CERCLA remedial action or the RCRA corrective action process will be used for the past-practice operable units. Under either process, DOE will investigate the contamination at the operable unit and study alternatives for cleaning up the problem. Following a public comment period, the appropriate regulatory agency will select the remedy. The following figure summarizes these processes, and shows that they are functionally equivalent.



A work plan will be developed for each operable unit that will address all activities from the start of field investigation through the proposed selection of a remedy for cleanup. Both the work plan and the documentation of the selected remedy will be made available for public comment.

Appendix D provides the definitive work schedule which reflects specific dates for activities in support of the major milestones.

# Documentation and Administrative Record

All documents will be categorized as either primary or secondary documents. Primary documents represent the interpretation of key data and reflect decisions on how to proceed. Secondary documents represent an

interim step in a decision making process, or are issued for information only and do not reflect key interpretations. Only primary documents are approved by the regulatory agencies and can be subjected to the dispute resolution process detailed in the Agreement. All documents (including secondary documents) will be reviewed by the regulatory agencies. The specific processes for document review, comment, and revision are contained in the Action Plan.

An Administrative Record will be established for each operable unit and TSD group, and will contain all of the documentation considered in arriving at CERCLA decision or RCRA permit. The Administrative Record file, including an index, will be available to the public for review in Richland, Seattle, and Lacey, Washington.

# Action Plan Publication

An updated version of the Action Plan will be published periodically as agreed upon by the three parties.

#### COMMUNITY RELATIONS

Section 10.0 of this Action Plan summarizes the community relations activities in support of the Agreement. A separate Community Relations Plan has been developed that meets the requirements for having such a plan at NPL sites, and also covers all the community relations needs of the Agreement, including RCRA public involvement requirements. The following summarizes the key elements of the Community Relations Plan:

- Public information repositories will be maintained in Seattle, Richland, and Spokane, Washington, as well as Portland, Oregon. Key documents and other information will be kept in these repositories for ready access by the public.
- Quarterly public information meetings will be held. Two meetings will be held each quarter; one in Richland, and the other rotated between other locations.
- Key decision documents will be made available for public comment prior to being finalized. Public meetings concerning these documents will be held as appropriate. Public hearings will be held upon request for draft permits or permit modifications.
- Changes to the Agreement, Action Plan, work schedule and other appendices will be subject to public comment based upon the significance of the pending change, as defined in the Community Relations Plan.
- An active system of keeping the public informed will be implemented.
   A mailing list will be maintained for distribution of fact sheets and newsletters.
- A federal technical assistance grant program will be administered by EPA and a public participation grant program will be administered by Ecology.

• Interested Indian Tribes will be afforded special meetings and direct distribution of key documents upon request.

The intent is to involve the public extensively concerning environmental compliance and cleanup of the Hanford Site.

# CURRENT STATUS OF ACTIVITIES AT HANFORD

Current status of activities addressed by the Agreement may be obtained from the status reports which are produced as a requirement of this Agreement. These reports are available for inspection at any of the four Information Repositories described in section 10.2 of this action plan. Current status is also provided through regular and special mailings from the three parties. Any person may be placed on the Hanford Site mailing list by contacting any of the community relations contacts shown in Appendix E of this action plan. Quarterly Public Information Meetings and other special public involvement meetings held in various locations in Washington and Oregon are also a source of current information. These meetings are announced via newspapers and direct mail notices to those on the Hanford Site mailing list.

# **ACTION PLAN**

#### 1.0 INTRODUCTION

#### 1.1 PURPOSE

The purpose of this action plan is to establish the overall plan for hazardous waste permitting, meeting closure and postclosure requirements, and remedial action under the Federal Resource Conservation and Recovery Act (RCRA) and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and the Washington State Hazardous Waste Management Act. All actions required to be taken pursuant to this Agreement shall be taken in accordance with the requirements of all applicable Federal and State laws and regulations.

This plan describes the U.S. Environmental Protection Agency (EPA) and State of Washington regulatory integration, and the methods and processes to be used to implement the Hanford Federal Facility Agreement and Consent Order, hereinafter referred to as "the Agreement," among the State of Washington Department of Ecology (Ecology), the EPA, and the U.S. Department of Energy (DOE). The parties recognize that hazardous waste compliance, permitting, closure and postclosure action, and remedial and corrective action at the Hanford Site will require a fully integrated effort involving the Federal RCRA, CERCLA, and the Washington State Hazardous Waste Management Act. For purpose of this action plan, the term RCRA means the RCRA as amended and the Washington Hazardous Waste Management Act (HWMA).

This action plan contains a work schedule (Appendix D), that is based on a rationale for setting priorities for work to be accomplished. This rationale is identified in Section 3.0. The work schedule identifies the target dates and milestones to be met in implementing this plan. Requirements and standards under Washington's Dangerous Waste Regulations and RCRA for hazardous waste generation and transportation, as specified in Chapter 173-303 of the Washington Administrative Code (WAC) and Title 40, Code of Federal Regulations (CFR), Parts 262 and 263, are not addressed by this action plan. However, this does not relieve the DOE from meeting these requirements.

Appendix A provides a definition of terms and acronyms as used in this action plan.

# 1.2 REGULATORY AUTHORITIES

This action plan and its appendices are binding and enforceable on all parties unless otherwise noted. The regulatory authorities of the EPA and Ecology currently include, but are not limited to, the following:

- The EPA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended, and the Resource Conservation and Recovery Act of 1976 (RCRA), as amended
- Ecology: Hazardous Waste Management Act (HWMA), Chapter 70.105
   Revised Code of Washington (RCW), as amended.

Specific regulatory authorities/clarifications include the following.

- On January 31, 1986, Ecology received final authority to implement the State Dangerous Waste Program in lieu of the Federal base RCRA program in the State of Washington. On November 4, 1994, Ecology received authorization from EPA to implement corrective actions under the Hazardous and Solid Waste Amendments of 1984 (HSWA).
- Amendments to the base RCRA regulations (i.e., those not promulgated pursuant to HSWA) do not become effective under RCRA until the State has promulgated regulations to implement them and they have been authorized by EPA. State regulations are effective, however, as provided under state law. In contrast, amendments to HSWA regulations become effective under RCRA immediately whether or not the State has received HSWA authorization.
- On August 19, 1987, CH. 70.105 RCW was amended to allow Ecology to regulate mixed waste. On November 23, 1987, Ecology received authorization from the EPA to regulate mixed waste in the State of Washington.
- Ecology will serve as lead regulatory agency for all provisions of the HWMA including those that have not been authorized pursuant to section 3006 of RCRA.
- The selection of CERCLA remedial actions cannot be delegated to the State of Washington under the existing statute and will, therefore, continue to be exercised by the EPA. However, Ecology will serve as lead regulatory agency for certain past-practice units and will involve EPA as necessary to approve the selected remedy in accordance with an EPA/Ecology Memorandum Of Understanding.
- Ecology shall issue the RCRA permit under the State Dangerous Waste Program. Where the permit involves HSWA provisions for which the state is not authorized, the EPA shall issue that portion of the permit. This will be a joint EPA/Ecology permit. The EPA shall retain an oversight role of Ecology's program and activities under the delegation of authority.

This action plan is based on existing Federal and State regulations. If changes to those regulations create inconsistencies between the action plan and the regulations, the action plan will be modified accordingly.

# 1.3 ORGANIZATION OF ACTION PLAN

Section 2.0 identifies the major milestones agreed to by all parties under this Agreement. Major interrelationships between milestones are shown.

All parties realize that the Hanford Site is complex, with numerous waste management units. Section 3.0 describes an inventory and unit classification approach for effective organization and continuity of effort. It also includes criteria to be used for prioritizing the activities to be performed. Section 4.0 identifies a tiered management structure to oversee actions conducted under this plan and describes meetings to be used to ensure effective communications between all parties. Section 5.0 describes the

rationale and process by which waste management units at the Hanford Site will interface and be managed in accordance with the above-mentioned authorities. Section 6.0 describes the RCRA treatment, storage, and disposal unit processes and Section 7.0 describes past-practice unit processes in accordance with parts two and three of the Agreement respectively.

Section 8.0 describes the process for facilities transitions. Section 9.0 defines the documents to be generated under this action plan, the classification and listing of primary and secondary documents, and the records systems to be implemented to preserve and access the documentation. Section 10.0 describes the method and processes necessary for community relations and effective public involvement.

Section 11.0 describes the purpose and format of the work schedule (Appendix D). In addition, Section 11.0 identifies the supporting plans that implement this action plan and the work schedule. Section 12.0 establishes a process for parties to propose and implement changes to elements of this Agreement, action plan, appendices, and supporting plans. Section 12.0 also addresses the process for minor field changes. Section 13.0 addresses requirements for management of discharges of liquid effluents to the soil column at Hanford.

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# 2.0 MILESTONES

#### 2.1 INTRODUCTION

This section discusses the milestones that have been agreed to by all parties in support of this Agreement. These milestones represent the actions necessary to ensure acceptable progress toward Hanford Site compliance with RCRA, CERCLA, and the Washington State Hazardous Waste Management Act (HWMA). Appendix D contains interim milestones and target dates which support major milestones.

The major milestones fall into the following categories:

- Disposal of tank wastes
- Cleanup of past-practice units
- RCRA and HWMA operating requirements.

New facilities required to support these activities are included in the category that they most directly support, recognizing that some of the facilities (e.g., laboratories) support more than one category.

The major milestones discussed in this section are based on existing funding and anticipated funding levels in the future. If funding levels are greater than anticipated, or if new sources of funding become available, the parties agree to renegotiate the milestones to decrease the amount of time necessary to complete the work.

# 2.2 DISPOSAL OF TANK WASTES

This category addresses the closure of the Hanford single-shell storage tanks and the final disposition of the wastes that are stored in single and double-shell tanks. The goals of these milestones are to reduce the current risk associated with single-shell tanks and to implement the long-term solutions for final disposition of all tank wastes. The milestones associated with single-shell tank closure support a schedule to complete all actions in accordance with a 40-year tank closure schedule.

#### 2.3 CLEANUP OF PAST-PRACTICE UNITS

This category addresses the investigation and resultant remedial or corrective actions for past-practice units (see Section 3.3 for discussion of past-practice units) on the Hanford Site. The goal of these milestones is to achieve timely and appropriate cleanup of the Hanford Site. The milestones associated with operable unit investigations and cleanup support a schedule to complete all site cleanup actions in accordance with a 30-year site cleanup schedule.

# 2.4 RCRA AND HWMA OPERATING REQUIREMENTS

This category addresses those actions necessary to satisfy RCRA requirements and obtain a final operating permit for all TSD units on the Hanford Site. It also addresses closure of those TSD units that are not being closed in conjunction with past-practice units. The goal of these milestones is to achieve compliance with all RCRA and State Dangerous Waste Program requirements.

# 3.0 UNIT IDENTIFICATION, CLASSIFICATION, AND PRIORITIZATION

#### 3.1 INTRODUCTION

This section describes what constitutes a waste management unit at the Hanford Site. In addition, it describes how waste management units are classified, prioritized, and grouped for common investigation and response or corrective action.

A waste management unit represents any location within the boundary of the Hanford Site that may require action to mitigate a potential environmental impact. This would include all solid waste management units (SWMUs) as specified under Section 3004(u) of RCRA. These waste management units were previously defined in the Hanford Site Waste Management Units Report (see Section 3.5). Waste management units include the following:

- Waste disposal units (including RCRA disposal units)
- Unplanned release units (including those resulting from spills)
- Inactive contaminated structures
- RCRA treatment and storage units
- Other storage areas.

The parties recognize and agree that certain activities related to the stabilization and transition of facilities, before or after the shutdown decision has been made, through the final disposition of structures by DOE. are subject to RCRA. CERCLA or other regulatory controls related to the Agreement. The generation and/or discharge of (Ecology/EPA) regulated substances or wastes (including the treatment, storage and disposal of those substances or wastes) shall be subject to this Agreement. Appropriate specific requirements and/or Tri-Party Agreement Milestones for the completion of key activities that generate or discharge regulated substances or wastes shall be incorporated into the Action Plan. Agreed-upon key transition, surveillance and maintenance, and disposition activities not subject to Ecology/EPA regulation that are critical path to cleanup of an aggregate area will be established as target dates. The goal is to conduct regulated and nonregulated work in an orderly sequence to insure coordination with other cleanup actions. Section 8.0 defines the process for identification of key Hanford facilities, and the subsequent process for conducting their transition, surveillance and maintenance, and/or disposition. Facilities which are fully dispositioned under the RCRA closure process (see Section 3.2), or are dispositioned in conjunction with an operable unit cleanup (see Section 3.3), are not addressed under Section 8.0. DOE will enter into negotiations for transition or disposition of key facilities within three months of a shutdown notice or decision to proceed with disposition. respectively. Such negotiations will be completed within 6 months from initiation. If they are not, any party may initiate dispute resolution in accordance with this Agreement.

In the event that a contaminated structure is found to be the source of a release (or presents a substantial threat of a release) of hazardous substances, hazardous wastes, or hazardous constituents to the environment,

the investigation and remediation of such a release (to include remediation of structures, as necessary), where subject to CERCLA or RCRA, shall be subject to this Agreement. Specific requirements shall be incorporated into the Action Plan as appropriate. Releases which have already been identified have been included in the Action Plan as waste management units and assigned to operable units (see Appendix C).

As part of any action being taken under either RCRA or CERCLA for a contaminated structure, EPA and Ecology shall consider available information related to decommissioning activities, including environmental impact statements. All hazardous wastes generated by the decommissioning activities or stored at these storage areas shall be managed in accordance with applicable Federal and State hazardous waste regulations.

# 3.2 TREATMENT, STORAGE, AND DISPOSAL UNITS

Treatment, storage, and disposal units are those units which will be permitted (for operation and/or postclosure care) and/or closed, under the Washington State Dangerous Waste Regulations (173-303 WAC) and the applicable provisions of HSWA. Appendix B provides a current listing of these units, or group of units (with individual units defined); identifies whether the TSD group/unit will be permitted for operation or closed; and identifies the assigned operable unit, if applicable. A TSD group represents a combination of units that are combined for purposes of preparing a permit application or closure plan. The schedule of permitting activities or closures will be established by Ecology in cooperation with the EPA and DOE. Some TSD groups/units, primarily land disposal units, are included within operable units (see Section 3.3 below) and will be addressed concurrently with past-practice activities as defined in Section 5.5. A further discussion of TSD groups/units is provided in Section 6.0.

### 3.3 PAST-PRACTICE UNITS

A past-practice unit is a waste management unit where wastes or substances (intentionally or unintentionally) have been disposed and that is not subject to regulation as a TSD unit as specified in Section 3.2.

Due to the relatively large number of past-practice units at the Hanford Site, a process has been established for organizing these units into groups called operable units. The concept of operable units is to group the numerous units (primarily by geographic area) into manageable components for investigation and response action and to prioritize the cleanup work to be done at the Site.

The Waste Information Data System (WIDS) (see Section 3.5) contains information on waste management units that was used to support the development of operable units. This information, combined with operable unit identification and prioritization criteria described in this section, resulted in the initial designation of approximately 75 operable units across the Hanford Site. The Hanford Operable Units Report (currently titled "Preliminary Operable Units Designation Project") documents the assignment of units to operable units and prioritizes the operable units. The Hanford Operable Units Report is discussed further in Section 7.0. Each of the operable units will be subject to an investigation in the form of either a CERCLA or a RCRA past-practice process as described in Sections 7.3 and 7.4,

respectively. Appendix C includes a current list of all the past-practice units on the Hanford Site by operable unit.

Some TSD units, primarily land disposal units, will be investigated and managed in conjunction with past-practice units and have been assigned to appropriate operable units (see Appendix B for current assignment of TSD groups/units to operable units). The information necessary for performing RCRA closures within an operable unit will be provided in coordination with various RFI/CMS documents. These documents will include a coordinated past-practice site investigation/RCRA closure/RCRA corrective action approach in order to efficiently implement applicable regulations. Those TSD units not assigned to an operable unit are typically treatment or storage units that are likely to be "clean closed" as described in Section 6.3.1.

Individual past-practice units (and selected TSD units) have been assigned to a specific operable unit based on the following criteria:

- General patterns of waste disposal from specific process sources
- Spatial relationship to other waste units
- Contribution to the same groundwater contaminant plume
- Physical characteristics of area (e.g., geologic/hydrogeologic)
- Access considerations (e.g., buildings, buried pipes)
- Anticipation of similar remedial action strategy (economy of scale)
- Reasonable number of total units to effectively manage.

In addition to the operable units discussed above, groundwater operable units can be established where multiple sources from different operable units have contributed to the same plume. Operable units that are associated with a groundwater operable unit are referred to as source operable units. The schedule for investigation of each groundwater operable unit will coincide with the schedule for investigation of the source operable unit that is the major contributor to the plume. Other associated source operable units that are lower priority will be investigated at a later time, in accordance with the established criteria for prioritization of operable units.

#### 3.4 PRIORITIZATION

This section describes the bases for prioritizing operable units and those TSD groups/units that are not included within operable units.

# 3.4.1 Prioritization of Operable Units

Operable units are prioritized based on an initial assessment of risk potential to ensure that action is focused on the greater hazard. Criteria for evaluating and remediating potential hazards include the following information:

Volume of wastes or hazardous substances

- Hazardous substances identification and concentration
- Toxicity or health effects of the hazardous substances
- Potential for migration to receptors via all environmental pathways.

In addition, the following factors are used to determine priority:

- Available technology to investigate or remediate the operable unit
- Operation consideration (e.g., timing of decommissioning activities)
- Consideration to those operable units that include TSD units.

Appendix C lists the current priority of operable units for investigation. This is based on currently available information and data. As new information and data become available, these priority assignments may be modified. The Hanford Operable Units Report provides the rationale and justification for the prioritization of the operable units. This priority is the basis for the work schedule (Appendix D). Procedures for modification of Appendix C are described in Section 12.0.

The highest priority operable units have been individually ranked and scheduled for investigation, whereas the remaining operable units have been prioritized into groups (see Appendix C). The single-shell tank operable units are unique and will be addressed separately as part of a supporting work plan.

# 3.4.2 Prioritization of Treatment, Storage, and Disposal Units

All TSD groups/units are subject to a permitting and/or closure process described in Section 6.0. Those TSD groups/units assigned to an operable unit will be prioritized in conjunction with past-practice priorities for purposes of investigation. The order in which permit applications or closure plans will be developed for the remaining TSD groups/units is based on consideration of the following criteria.

- Environmental Risk. The risk to public health and environment is the most important consideration. Any action that will significantly reduce the risk to public health and/or the environment will be considered the highest priority.
- Waste Minimization. Waste minimization is central to the goal of reducing environmental risks and bringing about environmental compliance for continuing operations and for new units at the Hanford Site. Therefore, the parties agree that Ecology's "Priority Waste Management Policy" (Ecology 86-07), established pursuant to CH. 70.105.150 RCW, shall be adhered to as guidance for purposes of establishing permitting priorities, in addition to evaluating proposed changes in operational procedures, and for the development and implementation of new waste management strategies. This policy defines the following prioritized actions: (1) waste reduction, (2) recycling, (3) treatment, (4) stabilization, and (5) land disposal.

- Permit Application Dates Required by Law. The Hazardous and Solid Waste Amendments of 1984 (HSWA) mandated dates for submittal of Part B permit applications. The dates for submitting dangerous waste (excluding mixed waste units) Part B permit applications were as follows:
  - Land disposal units: November 8, 1985
    (all required Part B applications were submitted prior to this date)
  - Incineration units: November 8, 1986 (not applicable for the Hanford Site)
  - Treatment and storage units: November 8, 1988.

Part A permit applications for all mixed waste units that will be operating under interim status were due by May 23, 1988 (this date was met for all such known units). Part B permit applications for the disposal of mixed waste to land disposal units were due by November 23, 1988 (this date was met for all such known units), including the certification statement required by Section 3005(e)(2) of RCRA, that the unit is in compliance with the interim status groundwater monitoring requirements. There are no statutory Part B permit application dates for mixed waste treatment and storage units.

• Operational Requirements. Some operational considerations are important for maintaining or achieving environmental compliance, continuation of Hanford Site operations, or achieving cleanup in a cost-effective manner. Examples of such operational considerations include permitting a treatment unit for operation or accelerating closure actions to complement decontamination and decommissioning of related structures.

# 3.5 WASTE INFORMATION DATA SYSTEM AND HANFORD SITE WASTE MANAGEMENT UNITS REPORT

The Waste Information Data System (WIDS) is maintained by the DOE and identifies all waste management units on the Hanford Site. This database will describe the current status of each unit (e.g., active/inactive, TSD, CERCLA past-practice or RCRA past-practice), and will include other descriptive information (e.g., location, waste types). A hard copy and/or an electronic data transfer (or equivalent) of the WIDS database will be provided to the EPA and Ecology. Upon written request, the DOE will provide data from the WIDS database within 14 days from receipt of request. If additional time is required, the DOE will notify the requestor within three days of receipt of the request. A change control system is provided as part of the WIDS database to document and trace all changes dealing with current status on a unit.

The WIDS database provides the basis for the Hanford Site Waste Management Units Report (HSWMUR). The HSWMUR was initially submitted to the EPA on May 15, 1987, in response to RCRA Section 3004(u) of the HSWA. This document lists all known waste management units (including unplanned release units) at the Hanford Site and summarizes the wastes handled, dates of use,

and other information about each unit. In January of each year the DOE will reissue the HSWMUR, if determined necessary, incorporating all changes since the last report. A copy will be provided to each public information repository.

# 4.0 AGREEMENT MANAGEMENT

#### 4.1 PROJECT MANAGER ROLE

The DOE and the lead regulatory agency(ies) (see Section 5.6 for discussion of lead regulatory agency) shall each designate an individual as a project manager for each operable unit, TSD group/unit or specific milestone to be completed under this Agreement. Project managers will only be identified for those areas where effort is ongoing or planned in the near future. A listing of currently assigned project managers shall be maintained and distributed to all parties by the DOE. Each project manager shall represent his/her respective party and keep his/her agency informed on the status and any problems that arise.

Project managers from each party must have experience and capabilities necessary to carry out their assigned responsibilities. The lead regulatory agency(ies) will assign a project manager with the experience and capability to provide all the routine regulatory oversight necessary for DOE's successful completion of the assigned milestone. DOE will assign a project manager with the experience and capability to manage the project, to oversee the actions of contractor staff, and to maintain regulatory compliance necessary to the completion of the milestone. The project manager from the lead regulatory agency (see Section 5.6 for discussion of lead regulatory agency) shall be responsible for regulatory oversight of all activities required by this action plan for completion of that milestone.

The primary responsibilities of the project managers are to implement the scope, terms, and conditions of the Agreement, direct and provide guidance to their respective contractors and staff, maintain effective communication among each other, and report status to their respective management.

Subject to the limitations set forth in Article XXXVII (Access) of the Agreement and, in addition to other authorities and responsibilities, the Ecology and EPA project managers, or their designated representative(s), shall have the authority to: (1) take samples, request split samples of the DOE samples, and ensure that work is performed properly and pursuant to the EPA protocols as well as pursuant to the attachments and plans incorporated into this Agreement; (2) observe all activities performed pursuant to this Agreement, take photographs, and make sure other reports are prepared on the progress of the work as the project manager deems appropriate; and (3) review records, files, and documents relevant to this Agreement. In addition, the project manager for the lead regulatory agency has authority to require changes to any procedural, design, or specification clocument that is referenced in a supporting work plan. Such required changes will be subject to the appropriate dispute resolution process as specified in the Agreement.

The DOE project managers or their representatives shall be physically present on the Hanford Site or reasonably available to supervise work performed at the Hanford Site during the performance of work pursuant to this Agreement and shall be available to the EPA and Ecology project manager for the pendency of this Agreement.

Other authorities and responsibilities are identified in the context of this action plan. The project managers may delegate their authority and responsibilities with notice to the other affected party(ies).

Project managers for DOE and the lead regulatory agency shall meet to discuss progress, address issues, and review near-term plans pertaining to their respective milestones, operable units and/or TSD groups/units. For TSD groups and operable units, meetings shall be held monthly, unless the project managers agree that a meeting is not appropriate. The meetings shall emphasize technical issues and work progress. The assigned DOE project manager shall mark up the appropriate schedules from the RI/FS work plan, closure plan, etc., and/or detailed near-term schedules prior to the meeting. The schedules shall address all ongoing activities associated with the milestones, operable unit or separate TSD groups/units, to include actions on specific units (e.g., sampling). These schedules will be provided to all parties and reviewed at the meeting. Any agreements and commitments (within the project manager's level of authority) resulting from the meeting will be prepared and signed by all parties as soon as possible after the meeting. Signed meeting minutes will be issued to the lead regulatory agency and the administrative record by the DOE project manager summarizing the discussion at the meeting. The minutes will include, at a minimum, the following:

- Status of previous agreements and commitments
- Any new agreements and commitments
- Schedules (with current status noted)
- Any approved changes signed off at the meeting in accordance with Section 12.2

# 4.2 INTERAGENCY MANAGEMENT INTEGRATION TEAM

The DOE, EPA and Ecology shall each designate a representative to act as a member of the Interagency Management Integration Team (IAMIT). The DOE representative shall be an Assistant Manager. The EPA representative shall be the Project Manager, Hanford Project Office. The Ecology representative shall be the Program Manager for the Nuclear Waste Program. The assigned representatives acting as members of the IAMIT shall be reasonably available in the Tri-Cities to perform the roles described in this section. Roles of the IAMIT or their designated representatives shall include the following responsibilities.

- The IAMIT shall be the first level of formal dispute resolution for those issues which remain unresolved by the project managers. It is the role of the IAMIT to act decisively and effectively to resolve issues within their respective authorities.
- The IAMIT shall have approval authority for changes to the Agreement as specified in Section 12.0 of this Action Plan.
- The IAMIT shall act as the primary interface with the established Hanford Advisory Board.
- The IAMIT shall serve as the primary point of focus for the three parties for discussion and resolution of budget issues.

IAMIT meetings will be conducted as needed, with a focus on making decisions to ensure progress in meeting Agreement milestones and to resolve disputes.

IAMIT meetings to resolve disputes, to consider change requests, or to take other action on a milestone, operable unit or TSD unit will generally only involve the affected lead regulatory agency and DOE IAMIT members. A meeting of the IAMIT members of all 3 parties shall be conducted at least quarterly to discuss matters of concern to all three parties. Any agreements and commitments (within the IAMIT level of authority) resulting from the meeting will be prepared and signed by all parties as soon as possible after the meeting. Signed meeting minutes will be issued to the lead regulatory agency and the administrative record by the DOE summarizing the discussion at the meeting. The minutes will include, at a minimum, the following:

- Status of previous agreements and commitments
- Any new agreements and commitments
- Schedules (with current status noted)
- Any approved changes signed off at the meeting in accordance with Section 12.2.

#### 4.3 SENIOR EXECUTIVE COMMITTEE

The DOE, EPA and Ecology shall each designate a representative to act as a member of the Senior Executive Committee (SEC). The DOE representative shall be the Deputy Manager for the Hanford Site. The EPA representative shall be the Director, Office of Environmental Clean Up. The Ecology representative shall be the Assistant Director for Waste Management.

SEC meetings shall be conducted as needed, with a focus on making decisions to ensure progress in meeting Agreement milestones and to resolve disputes. SEC meetings to resolve disputes, will generally only involve the affected lead regulatory agency and DOE SEC member. A meeting of the SEC members of all 3 parties shall be conducted as necessary.

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#### 5.0 INTERFACE OF REGULATORY AUTHORITIES

#### 5.1 REGULATORY PROGRAMS

The RCRA, CERCLA, and State Dangerous Waste Program overlap in many areas. In general, CERCLA was created by Congress to respond to the release of hazardous substances and to investigate and respond to releases and potential releases from past-practice activities. The RCRA and State Dangerous Waste Program were created to prevent releases at active facilities that generate, store, treat, transport, or dispose of hazardous wastes or hazardous constituents. The RCRA, as amended by HSWA, also provides for corrective action for releases at RCRA facilities regardless of time of release. This section is intended to clarify how these various programs will interface to achieve an efficient regulatory program.

Regulatory authority shall remain with the regulatory agency having legal authority for those decisions, regardless of whether that agency is the lead regulatory agency for the work (see Section 5.6 for lead regulatory agency concept). The lead regulatory agency shall oversee the work, and brief and obtain any necessary approvals from the agency with regulatory authority. For example, where Ecology is the lead regulatory agency at a CERCLA site, it shall brief EPA as necessary to obtain EPA approval before a remedial action is selected.

# 5.2 CATEGORIES OF WASTE UNITS

There are three categories of units and related statutory or regulatory authorities that will be addressed under this action plan. These categories are TSD unit, RCRA past-practice (RPP) unit, and CERCLA past-practice (CPP) unit, and are defined as follows.

# 5.2.1 Treatment, Storage, and Disposal Unit

This is a unit that has received or is currently receiving RCRA hazardous waste and hazardous constituents after November 19, 1980, or State-only hazardous waste, as defined in 173-303 WAC, after March 12, 1982. It also includes units at which such wastes will be stored, treated, or disposed in the future, except as provided by 173-303-200 WAC (waste accumulation times that do not require permitting). The TSD units are those that must receive a RCRA permit for operation or postclosure care and/or that must be closed to meet State standards. Section 6.0 describes the processes to be used to permit and/or close TSD units.

### 5.2.2 RCRA Past-Practice Unit

The purpose of this category is to address releases of RCRA hazardous wastes or constituents from sources other than TSD units at the Hanford Site regardless of the date of waste receipt at the unit. This includes single-incident releases at any location on the Site and corrective action beyond the Site boundary. Corrective action will be conducted under the authorized state HWMA corrective action program. Corrective action authority is based on three separate components of HSWA as follows:

- RCRA Section 3004(u). Section 3004(u) of RCRA provides authority for corrective action at solid waste management units at a facility seeking a RCRA permit. This includes units that received any solid waste, as defined in 40 CFR Part 261.2, including RCRA hazardous wastes or hazardous constituents, at any time. Hazardous constituents are those that are listed in 40 CFR Part 261 Appendix VIII. Those waste management units that will be addressed as RPP units under Section 3004(u) are so designated in Appendix C.
- RCRA Section 3004(v). RCRA Section 3004(v) specifies that corrective action to address releases from a RCRA facility will extend beyond the physical boundaries of the Site, to the extent necessary to protect human health and the environment. Section 3004(v) does not apply to releases within the boundary of the Hanford Site.
- RCRA Section 3008(h). RCRA Section 3008(h) is a broad corrective action authority that is applicable to the Hanford Site as long as RCRA interim status is maintained. It is more expansive than RCRA Section 3004(u), in that it can be used to address corrective action for any release of RCRA hazardous waste or constituents, including single-spill incidents, and can be used to address releases that migrate offsite.

#### 5.2.3 CERCLA Past-Practice Unit

The CPP units include units that have received hazardous substances, as defined by CERCLA, irrespective of the date such hazardous substances were placed at the unit. Those waste management units that will be addressed as CPP units are so designated in Appendix C.

For the purposes of this action plan, it is necessary to distinguish between a CPP unit, a RPP unit, and a TSD unit. Any TSD unit, as defined in Section 5.2.1, will be classified as a TSD unit, rather than a CERCLA unit, even if it is investigated in conjunction with CPP units. The CPP and RPP units will be distinguished in accordance with Section 5.4.

# 5.3 MANAGEMENT OF TREATMENT, STORAGE, AND DISPOSAL UNITS

As previously stated, TSD units are identified in Appendix B. Any additional TSD units that are subsequently identified shall be added to Appendix B in accordance with the process described in Section 12.2.

Unless closed in accordance with Sections 6.3.1 or 6.3.3, TSD units shall be permitted for either operation or postclosure care pursuant to the authorized State Dangerous Waste Program (173-303 WAC) and HSWA. Prior to permitting or closure of TSD units, DOE shall achieve (in accordance with the work schedule contained in Appendix D) and maintain compliance with applicable interim status requirements. All TSD units that undergo closure, irrespective of permit status, shall be closed pursuant to the authorized State Dangerous Waste Program in accordance with 173-303-610 WAC.

# 5.4 MANAGEMENT OF PAST-PRACTICE UNITS

This section describes the rationale for placing units in either a RCRA or a CERCLA past-practice category for corrective action as defined below. In many cases, either authority could be used with comparable results. The categories are as follows:

- The CPP units, (see Section 7.3)
- The RPP units, under the authorized state corrective action program (see Section 7.4).

Since the Hanford Site was proposed for inclusion on the National Priorities List (NPL) (Federal Register, June 24, 1988), and was placed on the NPL on November 3, 1989 (Federal Register, October 4, 1989), the parties agree that any units managed as RPP units shall address all CERCLA hazardous substances for the purposes of corrective action. The parties agree that all of the wastes regulated under the State Dangerous Waste Program (173-303 WAC) shall be addressed as part of any CERCLA response action or RCRA corrective action.

Section 121 of CERCLA, with provision for waivers in a limited number of circumstances, requires that remedial actions attain a degree of cleanup that meets "applicable or relevant and appropriate Federal and State environmental requirements" (ARAR). Accordingly, (1) all State-only hazardous wastes will be addressed under CERCLA, and (2) RCRA standards for cleanup or TSD requirements (as well as other applicable or relevant and appropriate Federal and State regulations) will be met under a CERCLA action (See Section 7.5 for further discussion of cleanup requirements). This eliminates many discrepancies between the two programs and lessens the significance of whether an operable unit is placed in one program or the other.

All past-practice units within an operable unit will be designated as either RPP units or CPP units. This designation will ensure that only one past-practice program will be applied at each operable unit. The corrective action process selected for each operable unit shall be sufficiently comprehensive to satisfy the technical requirements of both statutory authorities and the respective regulations.

If an operable unit consists primarily of past-practice units (i.e., no TSD units or relatively insignificant TSD units), CERCLA authority will generally be used for those past-practice units. The CERCLA authority will also be used for past-practice units in which remediation of CERCLA-only materials comprises the majority of work to be done in that operable unit.

The RPP authority will generally be used for cperable units that contain significant TSD units and/or lower priority past-practice units.

Currently assigned RPP and CPP designations are shown in Appendix C. Further assignments will be made in accordance with Section 12.2 prior to initiation of any actions for those operable units.

The EPA and Ecology shall jointly determine whether an operable unit will be managed under the authority of RPP or CPP. Such designation may be changed due to the discovery of additional information concerning the operable unit. If a change in authority is proposed after the Remedial Investigation/Feasibility Study (RI/FS) or RCRA Facility Investigation/Corrective Measures Study (RFI/CMS) work plan, as described in Section 7.0, has been submitted to the lead regulatory agency (see Section 5.6 on discussion of lead regulatory agency), the change requires the agreement of all parties.

# 5.5 TREATMENT, STORAGE, AND DISPOSAL UNITS AND PAST-PRACTICE UNITS INTERFACE

In some cases, TSD units are closely associated with past-practice units at the Hanford Site, either geographically or through similar processes and waste streams. Although disposition of such units must be managed in accordance with Section 6.0, a procedure to coordinate the TSD unit closure or permitting activity with the past-practice investigation and remediation activity is necessary to prevent overlap and duplication of work, thereby economically and efficiently addressing the contamination. In Appendix B, selected TSD groups/units, primarily land disposal units, have been initially assigned to operable units based on the criteria defined in Section 3.3. The information necessary for performing RCRA closures/postclosures within an operable unit will be provided in various RFI/CMS documents. The initial work plan will contain a Sampling and Analysis Plan (SAP) for the associated RCRA units and it will outline the manner in which RCRA closure/postclosure plan requirements will be met in the work plan and subsequent documents. The selected closure/postclosure method and associated design details will (unless otherwise agreed to by the parties) be submitted as part of the CMS report at a later date, as specified in the work plan. The proposed closure/postclosure activities contained in the CMS report will: (1) meet RCRA closure standards and requirements, (2) be consistent with closure requirements specified in the Hanford Site-Wide (RCRA) permit, and (3) be coordinated with the recommended remedial action(s) for the associated operable unit. Additionally, the closure/postclosure implementation schedule will reflect an overall prioritization between closure/postclosure and other remedial activities within the subject operable unit, considering environmental protection, health and safety, availability of technology, etc. Each RFI/CMS closure document will be structured such that RCRA closure requirements can be readily . identified for a separate review/approval process and RCRA closure/postclosure requirements can be incorporated in the RCRA Permit. If at a later date TSD groups/units need to be deleted from or added to an operable unit, the procedures defined in Section 12.2 will be used.

Ecology, the EPA, and DOE agree that past-practice authority may provide the most efficient means for addressing mixed-waste groundwater contamination plumes originating from a combination of TSD and past-practice units. However, in order to ensure that TSD units within the operable units are brought into compliance with RCRA and State hazardous waste regulations, Ecology intends, subject to part four of the Agreement, that all response or corrective actions, excluding situations where there is an imminent threat to the public health or environment as described in Section 7.2.3, will be conducted in a manner which ensures compliance with the technical requirements of the HWMA (Chapter 70.105 RCW and its implementation regulations). In any case, the parties agree that CERCLA remedial actions and, as appropriate, HSWA corrective measures will comply with ARARs.

# 5.6 LEAD REGULATORY AGENCY CONCEPT

The EPA and Ecology have selected a lead regulatory agency approach to minimize duplication of effort and maximize productivity. Either the EPA or Ecology will be the lead regulatory agency for each operable unit, TSD group/unit or milestone.

The lead regulatory agency for a specific operable unit, TSD group/unit or milestone will be responsible for overseeing the activities covered by this action plan that relate to the successful completion of that milestone or activities at that operable unit or TSD group/unit, ensuring that all applicable requirements are met. However, the EPA and Ecology retain their respective legal authorities. The lead regulatory agency shall brief and obtain any necessary approvals from the agency with regulatory authority in accordance with the EPA/Ecology MOU. Regulatory oversight activity, including preparation of responses to documents submitted by the DOE, will be performed by the lead regulatory agency for each operable unit, TSD group/unit or milestone. The non-lead regulatory agency will not assign staff to provide any oversight or support.

The assignment of the lead regulatory agency for an operable unit, TSD group/unit or milestone will be based on the following criteria.

- The EPA will generally be the lead regulatory agency when the operable unit, TSD group/unit or milestone involves:
  - Operable units that contain no TSD units or that contain lowpriority TSD units
  - Operable units that contain primarily CERCLA-only materials.
- Ecology will generally be the lead regulatory agency when the operable unit, TSD group/unit or milestone involves:
  - Operable units that consist of major TSD units, with limited past-practice units
  - Operable units that contain higher priority TSD units and lower priority past-practice units.
- Ecology will be lead regulatory agency for all TSD units and TSD groups.

In some cases, the above criteria may overlap, such that either the EPA or Ecology could be assigned as the lead regulatory agency. In this situation, other criteria would be used, such as available resources to undertake additional work in a timely manner, the designation and characteristics of an adjoining operable unit, or whether the characteristics of a given operable unit are similar to the characteristics of another operable unit that has already been managed by either agency.

Currently assigned lead regulatory agency designations are shown in Appendix C. Additional assignments will be made in accordance with Section 12.0 prior to any action on the operable unit, TSD group/unit or milestone. The lead regulatory agency shall maintain its role through completion of all required actions.

The decision as to which regulatory agency will assume the lead role will be a joint determination by the EPA and Ecology (see Paragraph 88 of this Agreement). Such determinations are subject to change based on additional information subsequently discovered concerning an operable unit, or for any other reason, as agreed upon by the EPA and Ecology. The parties intend that once the lead regulatory agency has been assigned, the lead regulatory agency designation will not change except for an extreme circumstance.

# 5.7 INTEGRATION WITH THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

The purpose of the NEPA requirements is to ensure that potential environmental impacts of investigation and cleanup activity are assessed. These assessments, when determined to be required, will be made primarily as part of the CERCLA response action and RCRA corrective action processes. These processes will be supplemented, as necessary, to ensure compliance with NEPA requirements.

# 6.0 TREATMENT, STORAGE, AND DISPOSAL UNIT PROCESS

#### 6.1 INTRODUCTION

This section discusses the requirements of RCRA and the State of Washington Hazardous Waste Management Act, Chapter 70.105 RCW, and pertains to all units that were used to store, treat, or dispose of RCRA hazardous waste and hazardous constituents after November 19, 1980; State-only hazardous waste after March 12, 1982; and units at which such wastes will be stored, treated, or disposed in the future, except as provided by 173-303-200 WAC.

A list of these units, or grouping of units, is provided in Appendix B. Section 3.0 identifies the criteria by which these units will be scheduled for permitting and closure actions.

Some of the TSD groups/units (primarily land disposal units) have been included in operable units, as discussed in Section 3.3, and will in most cases be investigated on a separate priority schedule, as discussed in Section 3.4. The information necessary for performing RCRA closures within an operable unit will be provided in coordination with various RFI/CMS documents. These documents will include a coordinated past-practice site investigation/RCRA closure/RCRA corrective action approach in order to implement applicable regulations as discussed in Section 5.5.

Some of the TSD groups/units (primarily those located within large processing facilities) will be integrated with the disposition of the facility, and therefore closed in accordance with the process defined in Section 8.0. These units are those that have physical closure actions that need to be done in conjunction with the physical disposition actions in the facility (e. g. removal of structural components). Even though TSD units are closed in accordance with Section 8.0, applicable requirements defined in this section still apply (e.g. 6.5 Quality Assurance).

Currently identified actions necessary to bring TSD units into compliance with Federal and State laws are identified in the work schedule (see Appendix D) including necessary interim milestones. These interim milestones are consistent with the major milestones for achieving interim status compliance requirements specified in Section 2.4. A schedule for completing interim status compliance actions is provided as part of Appendix D.

The RCRA land disposal restrictions (LDR) require that established treatment requirements be met prior to land disposal of hazardous wastes. While treatment capacity generally exists for the nonradioactive hazardous wastes which are subject to LDR, treatment is currently not available for the mixed wastes subject to LDR which require storage at the Hanford Site.

Ecology has received authorization from EPA to implement certain LDR provisions of RCRA pursuant to Section 3006 of RCRA. Accordingly, these authorized state provisions are effective in lieu of the Federal requirements. Both EPA and Ecology anticipate that Ecology will receive authorization for the additional LDR provisions in the future. EPA and Ecology intend to use the LDR provisions under M-26 and other HSWA provisions which have comparable state analogs that have not yet been authorized as an example of regulatory streamlining at the Hanford Site, by designating Ecology as the lead regulatory agency for those provisions under applicable state law.

This includes review and approval of LDR annual reports, plans, and schedules for compliance with M-26-00. While EPA must retain legal authority over portions of the LDR which are not yet authorized to the state, EPA will not assign staff to oversee the routine completion of activities related to M-26-00. In the event that EPA involvement in a specific matter is requested by Ecology or is otherwise necessary, Ecology staff will brief EPA and EPA will become involved to the extent necessary to help resolve that specific matter. EPA and Ecology intend that such involvement on the part of EPA will be the exception, rather than the rule.

In accordance with Milestone M-26-00, DOE has submitted the "Hanford Land Disposal Restrictions Plan for Mixed Wastes," (LDR Plan) to Ecology, as the lead regulatory agency. This plan describes a process for managing mixed wastes subject to LDR at the Hanford Site and identifies actions which will be taken by DOE to achieve full compliance with LDR requirements.

These actions will be taken in accordance with approved schedules specified in the LDR Plan and in the Work Schedule (Appendix D). The DOE will submit annual reports which shall update the LDR Plan and the prior annual report, including plans and schedules. The annual report will also describe activities taken to achieve compliance and describe the activities to be taken in the next year toward achieving full compliance. The LDR Plan and annual reports are primary documents, subject to review and approval by Ecology. Ecology also has approval authority for schedules in the LDR Plan and annual reports. Changes to approved final schedules must be made in accordance with the Change Control System described in Section 12.0.

# 6.2 TREATMENT, STORAGE, AND DISPOSAL PERMITTING PROCESS

The Hanford Site has been assigned a single identification number for use in State Dangerous Waste Program/RCRA permitting activity. Accordingly, the Hanford Site is considered to be a single RCRA facility, although there are numerous unrelated units spread over large geographic areas on the Site.

Since all of the TSD groups/units cannot be permitted simultaneously, Ecology and the EPA will issue the initial permit for less than the entire facility. This permit will eventually grow into a single permit for the entire Hanford Site. The Federal authority to issue a permit at a facility in this manner is found in 40 CFR 270.1(c)(4). Any units that are not included in the initial permit will normally be incorporated through a permit modification. At the discretion of Ecology and EPA, the permit revocation and reissuance process may be used.

The process of permit modification is specified in 173-303-830 WAC and 40 CFR 270.41. A permit modification does not affect the term of the permit (a permit is generally issued for a term of 10 years). Proposed modifications are subject to public comment, except for minor modifications as provided in 173-303-830(4) WAC and 40 CFR 270.42.

The process of revocation and reissuance is specified in 173-303-830 WAC and 40 CFR 270.41. Revocation and reissuance means that the existing permit is revoked and an entirely new permit is issued, to include all units permitted as of that date. In this case, all conditions of the permit to be reissued would be open to public comment and a new term (10 years in most cases) would be specified for the reissued permit.

Figure 6-1 depicts a flowchart for processing all operating permits for TSD groups/units and for processing postclosure permits for TSD groups/units that will close with hazardous wastes or constituents left in place. The permitting process applies to existing units, expansion of units under interim status, and new units (units that do not have interim status and must have a permit prior to construction).

Ecology shall normally be responsible for drafting permit conditions, including those related to HSWA requirements. Until the HSWA provisions have been delegated from EPA to Ecology through the authorization process, EPA will maintain final approval rights for those permit conditions pursuant to HSWA authority that have not been delegated. Therefore, certain conditions of the joint permit will be enforceable by Ecology, others will be enforceable by EPA, and some conditions will be enforceable by both agencies. The permit will identify which conditions are enforceable by each agency.

Disputes concerning any HWMA requirements, will be addressed in accordance with Article VIII of the Agreement.

Ecology will have the responsibility for drafting the permit and permit modifications for all TSD groups/units, ensuring that the Part B permit application is complete, and preparing the Notices of Deficiency (NOD) to the DOE.

The Part B permit application is a primary document, as defined in Section 9.1. The review procedures, as specified in Section 9.2.2, will be followed. In the event that issues cannot be resolved through the NOD process, the appropriate dispute resolution process can be invoked.

Section 3004(u) of RCRA requires that all solid waste management units be investigated as part of the permit process. The statute provides that the timing for investigation of such units may be in accordance with a schedule of compliance specified in the permit. The parties have addressed the statutory requirement through the preliminary identification and assignment of all known past-practice units to specific operable units (see Section 3.0). These operable units have been prioritized and scheduled for investigation in accordance with the work schedule (Appendix D). It is the intent of all parties that this requirement be met through incorporation of applicable portions of this action plan into the RCRA permit. This will include reference to specific schedules for completion of investigations and corrective actions.

Ecology, the EPA, and DOE will follow all current versions of applicable Federal and State statutes, regulations, guidance documents, and written policy determinations that pertain to the permitting process, including postclosure permits, for TSD groups/units. Public participation requirements for permitting TSD groups/units will be met and are addressed in Section 10.0.

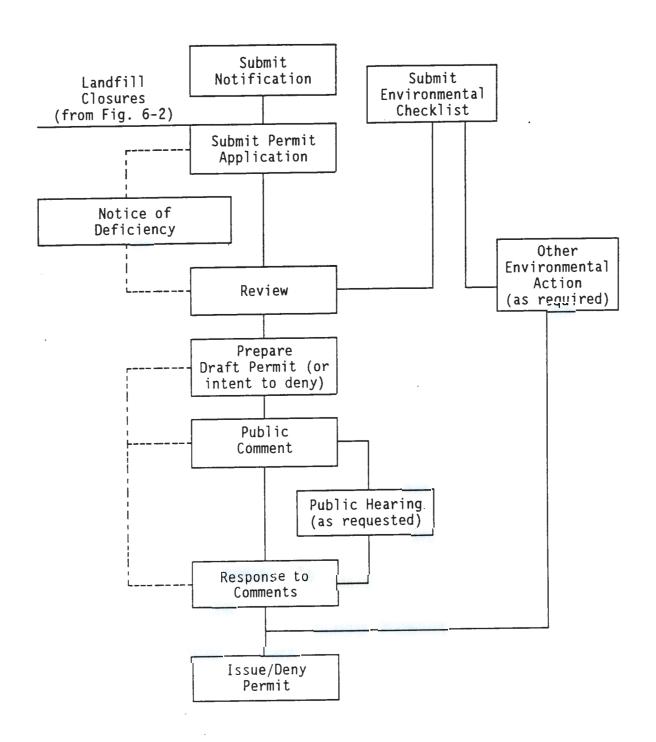


Figure 6-1. Permitting Process Flowchart.

### 6.3 TREATMENT, STORAGE, AND DISPOSAL CLOSURE PROCESS

The DOE will follow applicable Federal and State statutes, regulations and guidance documents, and written policy determinations that pertain to the closure process for TSD groups/units.

The TSD units containing mixed waste will normally be closed with consideration of all hazardous substances, which includes radioactive constituents. Hazardous substances not addressed as part of the TSD closure may be addressed under CERCLA past-practice (CPP) authority in accordance with the process defined in Section 7.0.

The following are examples of when a unit may be closed without addressing all hazardous substances (e.g., radioactive waste).

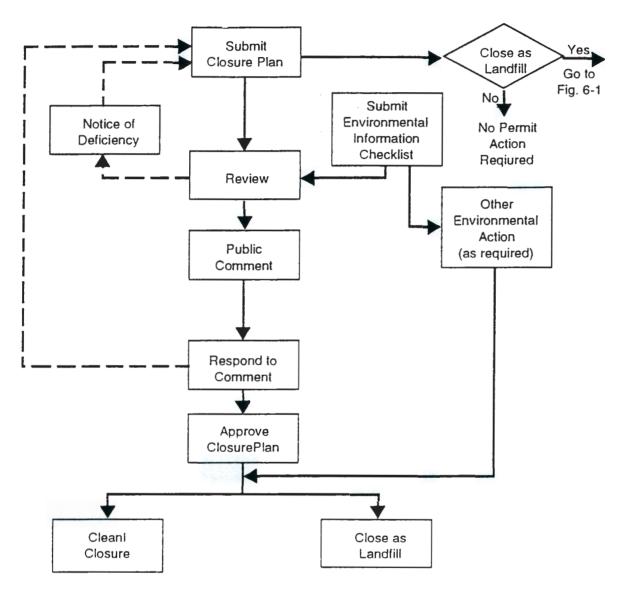
- For treatment or storage units within a radioactive structure [e.g., the Plutonium/Uranium Extraction (PUREX) Plant] it may be possible to remove all hazardous wastes and "clean close" (see Section 6.3.1). The radioactive constituent would then remain for a future decontamination and decommissioning effort of the entire structure.
- For a land disposal unit being closed in conjunction with an operable unit, initial investigation may show that the unit no longer contains hazardous waste or constituents. Therefore, the unit may be "clean closed" with no physical closure action. Any remaining CERCLA-only materials would be addressed as part of the past-practice process as designated for that operable unit.

Figure 6-2 depicts a flowchart of the closure process for TSD units. Two types of closures are shown.

#### 6.3.1 Clean Closure

In some cases, it may be possible to remove all hazardous wastes and constituents associated with a TSD unit and thereby achieve "clean closure." The process to complete clean closure of any unit will be carried out in accordance with all applicable requirements described in 173-303 WAC and 40 CFR 270.1. Any demonstration for clean closure of a disposal unit, or selected treatment or storage units as determined by the lead regulatory agency, must include documentation that groundwater and soils have not been adversely impacted by that TSD group/unit, as described in 173-303-645 WAC.

After completion of clean closure activities, a closed storage unit may be reused for generator accumulation (less than 90 day storage).



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Figure 6-2. Closure Process Flowchart.

#### 6.3.2 Closure as a Land Disposal Unit

If clean closure, as described above, cannot be achieved, the TSD unit will be closed as a land disposal unit. The process to close any unit as a land disposal unit will be carried out in accordance with all applicable requirements described at 173-303 WAC. In order to avoid duplication under CERCLA for mixed waste, the radionuclide component of the waste will be addressed as part of the closure action.

In the case of closure as a land disposal unit, a postclosure permit will be required. The postclosure permit will cover maintenance and inspection activities, groundwater monitoring requirements, and corrective actions, if necessary, that will occur during the postclosure period. The postclosure period will be specified as 30 years from the date of closure certification of each unit, but can be shortened or lengthened by Ecology at any time in accordance with 173-303-610 WAC. The closure plan will be submitted in conjunction with the Part B postclosure permit application, unless the parties agree otherwise. If a unit is to be closed as a land disposal unit prior to issuance of a permit for postclosure, an interim status postclosure plan will accompany the closure plan.

#### 6.3.3 Procedural Closure

This is used for those units which were classified as being TSD units, but were never actually used to treat, store, or dispose of hazardous waste, including mixed waste, except as provided by 173-303-200 WAC or 173-303-802 WAC. This action requires that Ecology be notified in writing that the unit never handled hazardous wastes. Such information must include a signed certification from the DOE, using wording specified in 173-303-810(13) WAC. Ecology will review the information as appropriate (usually to include an inspection of the unit) and send a written concurrence or denial to the DOE. If denied, permitting and/or closure action would then proceed, or the dispute resolution process would be invoked.

# 6.3.4 Expansion of Hanford Facility Waste Management Capacity Due to the Discontinuation of Process Operations

Many Hanford Site operations include systems that use chemical materials and/or solutions to perform required functions. When these systems are permanently removed from service, the chemical materials and/or solutions that no longer have a use may be considered a waste subject to the provisions of the dangerous waste regulations. For those systems that contain chemical materials and/or solutions that are considered waste, the components of the systems that contain this waste become subject to the Resource Conservation and Recovery Act (RCRA) permitting requirements of the Washington Administrative Code (WAC) 173-303 if the waste is managed for greater than 90 days. For facilities that have received a shut-down notice (facilities being transitioned), these system components (e.g., tanks and ancillary equipment) may be added to the Hanford Facility RCRA Dangerous Waste Part A Permit without providing notification required by WAC 173-303-281, provided that these components have no further waste management mission prior to RCRA closure or deactivation as addressed in Section 8.0.

#### 6.4 RESPONSE TO IMMINENT AND SUBSTANTIAL ENDANGERMENT CASES

The State of Washington Dangerous Waste Regulations, 173-303-960 WAC, addresses actions to abate an imminent and substantial endangerment to the health or the environment from the releases of dangerous or solid wastes. Ecology will require DOE to either take specific action to abate an identified danger or threat, or will require a specific submittal date for DOE to propose an abatement method.

See Section 7.2.3 for information concerning responses to imminent and substantial endangerment cases at past-practice sites.

### 6.5 QUALITY ASSURANCE

The level of quality assurance and quality control (QA/QC) for the collection, preservation, transportation, and analysis of each sample which is required for implementation of this Agreement shall be dependent upon the data quality objectives for the sample. Such data quality objectives shall be specified in RCRA closure plans, the RCRA permit, and any other relevant plans that may be used to describe sampling and analyses at RCRA TSD units.

The QA/QC requirements shall range from those necessary for non-laboratory field screening activities to those necessary to support a comprehensive laboratory analysis that will be used in final decision-making. This range of QA/QC options is included in the "Data Quality Strategy for Hanford Site Characterization" (as listed in Appendix F). This document is subject to approval by EPA and Ecology.

Based upon the data quality objectives, the DOE shall comply with EPA guidance documents for QA/QC and sampling and analysis activities which are taken to implement the Agreement. Such guidance includes:

- "Guidelines and Specifications for Preparing Quality Assurance Program Plans" (QAMS-004/80);
- "Interim Guidance and Specifications for Preparing Quality Assurance Project Plans" (QAMS-005/80);
- "Data Quality Objectives for Remedial Response Activities" (EPA/540/G-87/003 and 004); and
- "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (EPA/SW-846).

In some instances, RCRA TSD units are included in operable units and are scheduled for investigation and closure as part of the operable unit remedial action. DOE shall follow the provisions of Section 7.8 for QA/QC for sampling and analysis activities at these land disposal units.

In regard to QA requirements for construction of RCRA land disposal facilities, DOE shall comply with "Technical Guidance Document: Construction Quality Assurance for Land Disposal Facilities" (EPA/530-SW-86-031).

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For analytical chemistry and radiological laboratories, the QA/QC plans must include the elements listed in "Guidance on Preparation of Laboratory Quality Assurance Plans" (as listed in Appendix F). DOE shall submit laboratory QA/QC plans to the lead regulatory agency for review as secondary documents prior to use of that laboratory. In the event that DOE fails to demonstrate to the lead regulatory agency that data generated pursuant to this Agreement was obtained in accordance with the QA/QC requirements of this section, including laboratory QA/QC plans, DOE shall repeat sampling or analysis as required by the lead regulatory agency. Such action by the lead regulatory agency shall not preclude any other action which may be taken pursuant to this Agreement. For other data, the lead regulatory agency may request DOE to provide QA/QC documentation. Any such data that does not meet the QA/QC standard required by this section shall be clearly flagged and noted to indicate this fact.

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#### 7.0 PAST PRACTICES PROCESSES

#### 7.1 INTRODUCTION

This section has the following five purposes.

- Describe the processes that are common to both CPP units and RPP units (Section 7.2).
- Describe the steps to be followed if the past-practice units at a given operable unit are to be managed through the CERCLA process (Section 7.3).
- Describe the steps to be followed if the past-practice units at a given operable unit are to be managed through the RPP unit process (Section 7.4).
- Describe the process for setting cleanup standards for any CPP or RPP remedial action (Section 7.5).
- Describe the role of other Federal agencies in the investigation and remedial action processes (Sections 7.6 and 7.7).

Approximately 1,400 waste management units have been identified within the boundaries of the 560-square mile Hanford Site. This includes approximately 1,000 past-practice units. Most past-practice units are located in two general geographic areas as identified by the DOE (the 100 and 200 Areas). Other past-practice units are located in the 300, 1100 and other areas of the Hanford Site.

The 100, 200, 300, and 1100 Areas were identified as aggregate areas for inclusion of the Hanford Site on the CERCLA NPL. Figure 7-1 reflects these geographic areas at the Hanford Site. Each of these areas has a unique environmental setting and waste disposal history. The four aggregate areas were proposed for inclusion on the NPL on June 24, 1988, and were placed on the NPL on November 3, 1989 (Federal Register, October 4, 1989). The remaining past-practice units from other areas have been assigned to operable units within one of the four aggregate areas for the purpose of investigation and subsequent action. Any future units that may be identified will also be assigned to operable units within an aggregate area.

Cleanup of past-practice units will be conducted pursuant to either the CERCLA process (Section 7.3) or RCRA process (Section 7.4). Figure 7-2 highlights the major steps involved in both the CPP and RPP programs and indicates how each of these steps is related to a comparable step in the other program. It shows that the steps of CERCLA are functionally equivalent to steps in the RPP program. Accordingly, the investigative process at any operable unit can proceed under either the CPP or the RPP program.

In accordance with Section 3.1, and discussed in Section 8.3, the parties may elect to include the disposition of facilities under the past-practices processes. Such actions can proceed under either the CPP or the RPP Program.

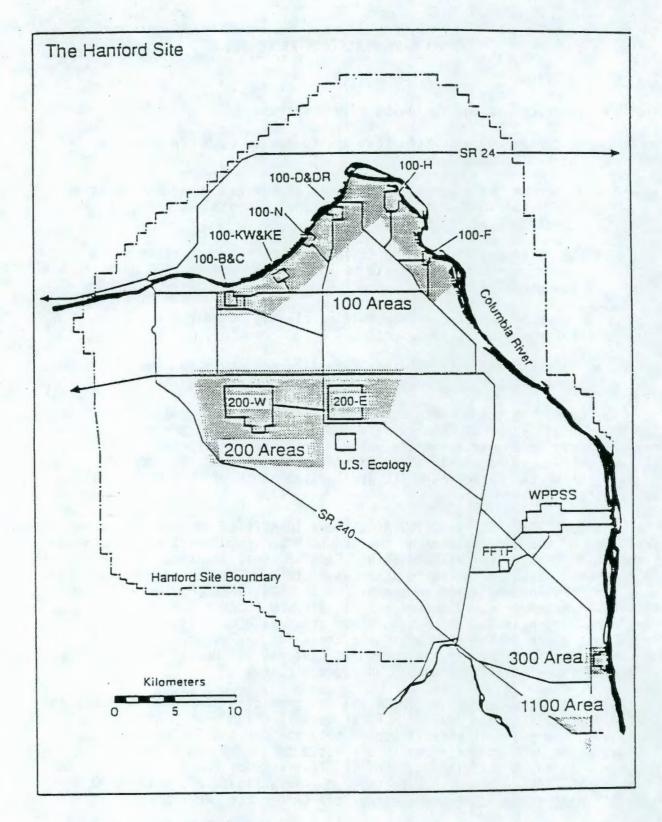
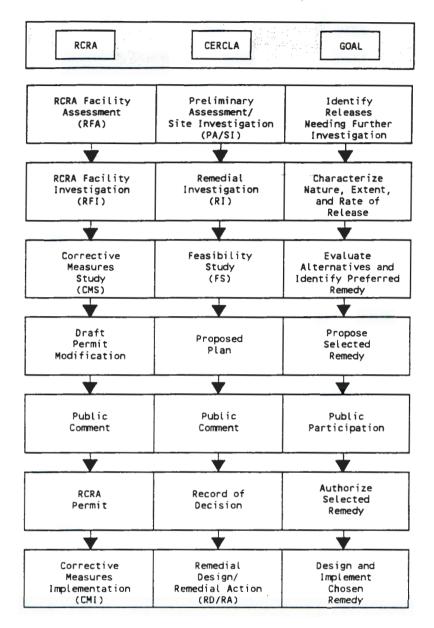


Figure 7-1. Aggregate Areas.



CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act

RCRA = Resource Conservation and Recovery Act

Note: Interim response actions or interim measures can be performed at any point in the remedial action/corrective measure process.

Figure 7-2. Comparison of Resource Conservation and Recovery Act Corrective Measure and Comprehensive Environmental Response, Compensation, and Liability Act Remedial Action Processes.

#### 7.2 PRELIMINARY PROCESSES

Section 5.4 describes the rationale for managing operable units under either the CPP or the RPP category. The following processes apply to all past-practice units, regardless of whether they are classified as RPP or CPP units.

### 7.2.1 Site-wide Scoping Activity

An ongoing scoping activity will be conducted on a site-wide basis to maintain a current listing of operable unit boundaries and priorities. The primary vehicle for documentation of this activity will be the Waste Information Data System (WIDS). The WIDS, as described in Section 3.3, the Hanford Site Waste Management Units Report, and Appendix C of this Action Plan will be updated as additional information becomes available.

Although initial operable unit boundaries have been identified (Appendix C), the site-wide scoping activity may reveal additional or new information that could impact either the designation of individual units within operable units or the priority in which operable units will be managed. Any such changes will require the written concurrence of the assigned executive managers for the DOE and the affected lead regulatory agency. If both EPA and Ecology are affected by this action, the written concurrence of both agencies will be required in accordance with the modification procedures described in Section 12.2.

The site-wide scoping activities will not impact the schedule of any other activities that are shown on the work schedule (Appendix D).

# 7.2.2 Operable Unit Scoping Activity

The operable unit scoping activity will be used to support the initial planning phase for each RI/FS (or RFI/CMS). Such activity and planning will result in an overall management strategy for each operable unit. In some cases, the operable unit management strategy may include facility dispositioning activities which will be integrated with this process as discussed under Section 8.3, "Decommissioning Process Planning." The DOE shall assemble and evaluate existing data and information about the individual waste management units within each operable unit. The data and information obtained during each operable unit scoping activity will be used to support the logic for the RI/FS (or RFI/CMS) work plan and, therefore, will be submitted as part of each work plan.

This scoping activity is not intended to be a mechanism for generation of new information except for site survey and screening activities described in Section 7.3.2, but a thorough and complete evaluation of existing data. The schedule for submittal of the work plans, as specified in the work schedule (Appendix D), allows time for inclusion of the scoping activity.

The following is a list of specific scoping activities that will be addressed in each RI/FS (RFI/CMS) work plan:

 Assessment of whether interim response actions (IRA) or interim measures (IM) may be necessary. Such assessments will be documented as part of the work plan and may result in IRA or IM proposals

- Assessment of available data and identification of additional data needs
- Identification of potential ARARs (see Section 7.5)
- Identification of potential remedial responses.

# 7.2.3 Response to Imminent and Substantial Endangerment Cases

In the event that a situation is determined by the lead regulatory agency to represent an imminent and substantial endangerment to the public health or welfare or the environment because of an actual or threatened release of a hazardous substance or hazardous waste or solid waste at an operable unit, the lead regulatory agency may require the DOE to immediately initiate activities to abate the danger or threat. CERCLA, RCRA and the HWMA all include provisions to quickly respond to such situations. If the operable unit is being managed under the CPP procedures, abatement in accordance with Section 106 of CERCLA and the applicable sections of the National Contingency Plan (NCP) (40 CFR Part 300) is preferred. If the operable unit is being managed under the RPP procedures, abatement under the provisions of the HWMA will be preferred. If the operable unit has not yet been assigned to either the CPP or RPP process, the EPA and Ecology will jointly choose an authority to address the imminent and substantial endangerment and will assign a lead regulatory agency to oversee DOE's efforts in completing the project.

The DOE may voluntarily submit a proposed method for abatement to the lead regulatory agency at any time. In cases involving a proposed method for abatement, the lead regulatory agency must approve the DOE's proposal prior to initiation of field work. The final selection of remedy for an abatement action shall be consistent, to the extent practicable, with the final selection of remedial action (for CPP units) or corrective measures (for RPP units) anticipated for the unit(s).

To expedite the cleanup process, neither the specified abatement method nor the proposal for abatement will be subject to the public comment process, except as required by law. However, the public will be kept informed of the status of the abatement process through other means as described in Section 10.0. After completion of all required abatement activity, the routine RI/FS or RFI/CMS process will be implemented, or continued, in accordance with the work schedule (Appendix D). The procedures specified in Section 7.3 or 7.4, respectively, will be followed.

# 7.2.4 Interim Response Action and Interim Measure Processes

If data or information acquired at any time indicate that an expedited response is needed or appropriate because of an actual or threatened release from a past-practice unit, the lead regulatory agency may require the DOE to submit a proposal for an expedited response at that unit. In addition, the DOE may submit such a proposal at any time, without request from the lead regulatory agency.

Both CERCLA and RCRA include provisions for expedited responses. These expedited responses will be reserved for situations in which an expedited response is determined to be warranted by the lead regulatory agency, which for purposes of this section includes both interim response action and interim measures. An IRA refers to the CERCLA process and an IM refers to the RCRA process. The IRA or IM process will be used in cases where early remediation will prevent the potential for an imminent and substantial endangerment or an imminent hazard to develop. It may also be used in cases where a single unit within an operable unit is a high priority for action, but the overall priority for the operable unit is low. In this way, a specific unit or release at an operable unit can be addressed on an expedited schedule, when warranted.

In addition to the CERCLA and RCRA authorities, Section 2 of Executive Order 12580, dated January 29, 1987, allows the DOE to implement removal actions in circumstances other than emergencies. To the extent that a removal action taken by the DOE under Executive Order 12580 could be inconsistent with the CERCLA or RCRA processes, or if such action could alter the schedules as set forth in Appendix D, the concurrence of DOE and the lead regulatory agency shall be required prior to initiation of field work in accordance with the modification procedures described in Section 12.0.

If the operable unit is being managed under the CPP procedures, an IRA proposal shall be submitted by the DOE to the lead regulatory agency, and the IRA shall be conducted in accordance with 40 CFR Part 300 Subpart E. If the operable unit is being managed under the RPP procedures, the IM proposal shall be submitted to the lead regulatory agency, and the IM shall be conducted in accordance with applicable regulations. If the operable unit has not yet been assigned to either the CPP or RPP process, the EPA and Ecology will jointly choose an authority to address the expedited response.

Any proposal for an IRA or an IM must be approved by the lead regulatory agency prior to initiation of field work. The selection of remedy for an IRA or an IM shall be consistent, to the extent practicable, with anticipated alternatives for final selection of remedial action (for CPP units) or corrective measures (for RPP units).

Public comment on the IRA proposal, as well as other public participation opportunities, will be provided as described in Section 10.0.

# 7.3 COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT PAST-PRACTICE UNIT PROCESS

The purpose of this subsection is to provide an overview of the CPP unit process to be used at the Hanford Site to initiate effective, timely, and environmentally sound cleanup of operable units handled under CERCLA. This includes a description of the RI/FS process, followed by a short discussion of the remedial design (RD), remedial action (RA), and operation and maintenance (0&M) phases.

## 7.3.1 Preliminary Assessment/Site Inspection

The Preliminary Assessment/Site Inspection (PA/SI) is used as an initial screening step to determine whether a site should be nominated for the CERCLA NPL. For the Hanford Site, the information necessary to make that determination was provided to the EPA in 1987 by the DOE. The EPA determined that this information was functionally equivalent to a PA/SI. Based on that information, the Hanford Site was ranked and then nominated for inclusion on the NPL on June 24, 1988 (Federal Register Vol. 53, No. 122, p. 23988). The four aggregate areas of the Hanford Site were officially placed on the NPL effective November 3, 1989 (Federal Register Vol. 54, No. 191, p. 41015). Therefore, there is no need to continue a PA/SI activity for the Hanford Site. Efforts will proceed directly to the scoping activities previously discussed and the RI/FS process. Figure 7-3 shows the normal sequence of events that occur during the RI/FS process.

# 7.3.2 Remedial Investigation/Feasibility Study Work Plan for Each Operable Unit

The RI/FS work plan is a primary document, as described in Section 9.0. The lead regulatory agency will provide comments on each RI/FS work plan that is submitted by the DOE. The RI/FS work plan will be made available for public comment for a period of 30 days, in accordance with the procedures described in Section 10.0. On a case-by-case basis, the project managers may agree to extend the comment period to 45 days. Following public comment, the lead regulatory agency will require the DOE to make appropriate changes to the RI/FS work plan, based on review of public comments received, and will approve the work plan. At that time, the work schedule (Appendix D) may need to be modified to accurately reflect the RI/FS work plan schedule. Such modification will be made in accordance with the procedures described in Section 12.0. At that time, the lead regulatory agency will publish the RI/FS schedule, in accordance with CERCLA Section 120(e)(1) and as specified in Article XVII of the Agreement. As additional information becomes available during the RI/FS process, the RI/FS work plan may be revised.

The RI/FS work plan will include or reference seven interrelated components as they pertain specifically to RI/FS activities at any given operable unit. These components, prepared in accordance with current EPA guidance documents, include the following:

- Technology
- Quality assurance/quality control
- Project management
- Sampling and analysis
- Data management
- Health and safety
- Community relations.

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Figure 7-3. Overview of the Remedial Investigation/Feasibility Study Process.

Every effort will be made to standardize these across RI/FS work plans to minimize the time and resources required for preparation and review. The community relations component will be prepared and issued as a separate formal plan as described in Section 10.0 and will then be referenced in each RI/FS work plan.

The following site survey and screening activities may precede submittal of the RI/FS work plan, and are a continuation of the operable unit scoping activity described in Section 7.2.2:

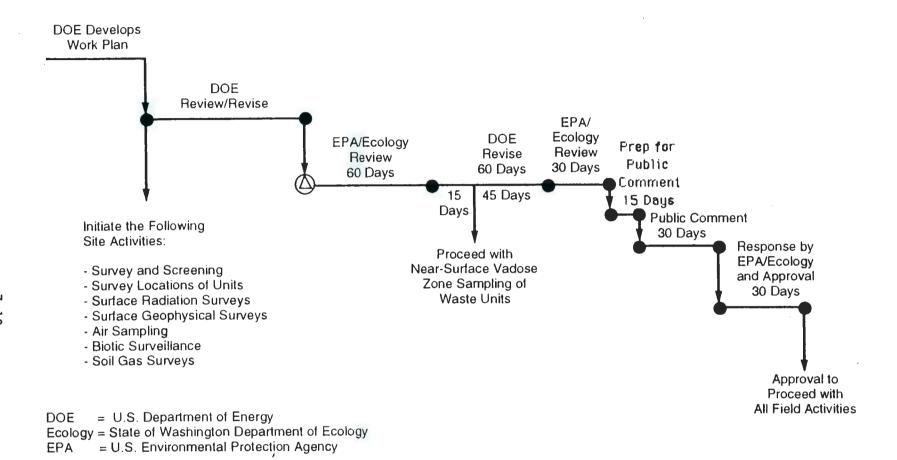
- Survey location of sites
- Surface radiation
- Surface geophysical surveys
- Air sampling
- Soil gas surveys
- Biotic surveillance.

This will allow for a quicker start of characterization activities upon approval of the RI/FS work plan. The results of the site survey and screening activities will be factored into the work plan, as appropriate, during the review and approval process. In addition, to further expedite the process, near-surface vadose zone sampling activities may commence after 2 weeks following the receipt of comments from the lead regulatory agency on the initial draft of the RI/FS work plan if comments from the lead regulatory agency regarding vadose zone sampling have been resolved. Following the public comment period on the work plan, the lead regulatory agency may require the DOE to modify or add to these preliminary activities as necessary to resolve any issues raised by the public. Figure 7-4 depicts the normal review and approval cycle, including public comment, for primary documents (see Section 9.0) as applied to the RI/FS work plans. Figure 7-4 also applies to RFI/CMS work plans, which are discussed in Section 7.4.2.

#### 7.3.3 Remedial Investigation--Phase I

The first phase of the remedial investigation (RI) will focus on defining the nature and extent of contamination through field sampling and laboratory analysis. This will include characterization of waste types, migration routes, volume, and concentration ranges. This information will be used to further develop cleanup requirements.

The DOE will initiate those activities necessary to characterize and assess risks, routes of exposure, fate and transport of contaminants, and potential receptors. It is anticipated that because of the limited data available during this phase to adequately assess risks, including environmental pathways and expected exposure levels, this analysis will be further developed during the feasibility studies (FS).



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Figure 7-4. Remedial Investigation/Feasibility Study (Resource Conservation and Recovery Act Facility Investigation/Corrective Measures Study) Work Plan Review and Approval.

In some cases, treatability investigations at an operable unit will involve minimal activity. In other cases, treatability investigations at a previously investigated operable unit may be used at other operable units whenever warranted by site-specific conditions. When these situations exist, it is possible to expedite the RI/FS process by combining the RI Phase I activity with the RI Phase II activity. Any decision to combine the RI Phases I and II must be agreed to in writing by the lead regulatory agency, in accordance with the procedures described in Section 12.0, unless it was agreed to during the initial approval of the RI/FS work plan.

The actual schedule for conducting the RI Phase I will be specified for each operable unit in the work schedule (Appendix D). The RI-Phase I report is a secondary document, as described in Section 9.0. In cases where the RI Phases I and II have been combined, a RI Phases I and II report shall be prepared by the DOE and submitted to the lead regulatory agency as a primary document, as described in Section 9.0.

## 7.3.4 Feasibility Study--Phase I

The FS Phase I will be conducted by the DOE for the purpose of developing an array of alternatives to be considered for each operable unit. The DOE will develop the alternatives for remediation by assembling combinations of technologies, and the media to which the technologies could be applied, into alternatives. The alternatives will address all contamination at each operable unit.

The FS Phase I process will begin during the RI Phase I process when sufficient data are available. Such data will consist of analytical data obtained during the RI, as well as historical information regarding waste management units at the operable unit.

Because of the direct relationship between FS Phase I (development of alternatives) and FS Phase II (screening of alternatives--Section 7.3.5), the two phases will be conducted concurrently. This approach should save several months in the RI/FS process, without sacrificing quality of work. Since Phases I and II of the FS will be finished at the same time, the information from both phases will be submitted to the lead regulatory agency in a single FS Phases I and II report.

### 7.3.5 Feasibility Study--Phase II

The FS Phase II will be a screening step to reduce the number of treatment alternatives for further analysis while reserving a range of options. Screening will be accomplished by considering the alternatives based on effectiveness, implementability, and cost factors. Cost may be used as a factor when comparing alternatives that achieve acceptable standards of performance.

Innovative technologies will be carried through the screening process if they offer the potential for better treatment performance or implementability, fewer or less adverse impacts than other available technologies, or lower costs than demonstrated technologies with comparable environmental results.

As stated in Section 7.3.4, Phases I and II of the FS will be conducted concurrently. Therefore, the FS Phase II will begin as soon as sufficient

data from the RI Phase I is obtained. The actual schedule for conducting the FS Phases I and II will be specified for each operable unit in the work schedule (Appendix D). The FS Phases I and II report, is a primary document as described in Section 9.0.

# 7.3.6 Remedial Investigation--Phase II

This second phase of the RI will focus on collecting data sufficient to substantiate a decision for remedy selection. A supplemental work plan to the RI/FS work plan will be prepared to cover the RI Phase II activities. This work plan will be placed in the Public Information Repositories. After a literature search is conducted to consider the applicability of various remediation alternatives, treatability investigations may be performed for particular technologies. Additional field data will be collected as needed to further assess alternatives. Treatability investigation work plans will be submitted by DOE to the lead regulatory agency when the investigation is related to a specific operable unit per the RI/FS work plan. All treatability investigation work plans shall be assigned to an operable unit for which a lead regulatory agency has been identified. The lead regulatory agency shall determine on a case-by-case basis whether a treatability investigation work plan is a primary document or a secondary document (see Section 9.1) during development of the applicable RI/FS (or RFI/CMS) work plan.

Upon completion of the treatability investigation, DOE shall submit a treatability investigation report to the lead regulatory agency, documenting the findings of the investigation and applicability to the remedial action project. The treatability investigation report is a secondary document (see Section 9.1).

The actual schedule for conducting the RI Phase II will be specified for each operable unit in the work schedule (Appendix D). The RI Phase II report is a primary document as described in Section 9.0. Where the RI Phase I and Phase II activities have been combined (see Section 7.3.3), the resulting RI Phases I and II report would also be a primary document.

#### 7.3.7 Feasibility Study--Phase III and Proposed Plan

The treatment alternatives passing through the initial screening phases will be analyzed in further detail against a range of factors and compared to one another during the FS Phase III. This final screening process will begin once the FS Phases I and II report is approved by the lead regulatory agency.

The determination for the preferred alternative will be made based on the following general criteria:

- Does the alternative protect human health and the environment and attain ARARs
- Does the alternative significantly and permanently reduce the toxicity, mobility, and volume of hazardous constituents
- Is the alternative technically feasible and reliable.

In addition, the costs of construction and the long-term costs of operation and maintenance will be considered.

The actual schedule for conducting the FS Phase III will be specified for each operable unit in the work schedule (Appendix D) and integrate any planned facility dispositioning per paragraph 8.3. A FS Phase III report will be prepared by the DOE documenting the results of the RI/FS. The FS Phase III report is a primary document as described in Section 9.0.

With consideration of all information generated through the RI/FS process, the DOE shall prepare a proposed plan. This proposed plan is required by CERCLA Section 117(a). The proposed plan must describe an analysis of the feasible alternatives and clearly state why the proposed remedy is the most appropriate for the operable unit, based on written EPA guidance and criteria. Once the lead regulatory agency has concurred on the proposed plan, and the FS Phase III report, the documents will be made available for public review and comment in accordance with the procedures described in Section 10.0. Public review of the proposed plan will provide opportunity for consideration of two additional criteria in preparation of the record of decision. These criteria are State and community preference or concerns about the proposed alternatives.

#### 7.3.8 Record of Decision

After the public comment period on the FS Phase III report and the proposed plan has closed, the record of decision (ROD) process will begin. The ROD will be prepared by the lead regulatory agency and will describe the decision making process for remedy selection, and summarize the alternatives developed, screened, and evaluated in accordance with CERCLA and the NCP. The lead regulatory agency is responsible for reviewing the comments received and will prepare a responsiveness summary that will accompany the ROD. Although all of the RI/FS and preliminary determinations through the process of drafting the ROD will be the responsibility of the lead regulatory agency for a given operable unit, the ROD must be signed by the EPA. The ROD will become part of the administrative record for each operable unit. The lead regulatory agency shall continue its role after issuance of the ROD, including oversight of the remedial design and remedial action phases, as described below.

#### 7.3.9 Remedial Design Phase

Following issuance of the ROD, the remedial design (RD) phase will be initiated in accordance with a schedule agreed to by the project managers. Milestone change requests shall be processed in accordance with Section 12.0. Since any necessary treatability investigations have been performed during the RI Phase II, no additional investigations will be necessary, unless required by the lead regulatory agency. A number of items will be completed during the RD phase, including but not limited to the following:

- Completion of design drawings
- Specification of materials of construction
- Specification of construction procedures
- Specification of all constraints and requirements (e.g., legal)
- Development of construction budget estimate

Preparation of all necessary and supporting documents.

An RD report will be prepared that includes the designs and schedules for construction of any remediation facility and development of support facilities (lab services, etc.). The RD report is a primary document as described in Section 9.0. The schedule for conducting the RD phase will be specified for each operable unit in the work schedule (Appendix D).

#### 7.3.10 Remedial Action Phase

The remedial action (RA) phase will be initiated in accordance with a schedule agreed to by the project managers. Milestone change requests shall be processed in accordance with Section 12.0. The RA phase is the implementation of the detailed actions developed under the RD. The RA will include construction of any support facility, as specified in the RD report, as well as operation of the facility to effect the selected RA at that operable unit.

An RA work plan will be developed for each operable unit detailing the plans for RA. The RA work plan is a primary document as described in Section 9.0. The schedule for conducting the RA phase will be specified for each operable unit in the work schedule (Appendix D).

Upon satisfactory completion of the RA phase for a given operable unit, the lead regulatory agency shall issue a certificate of completion to the DOE for that operable unit. At the discretion of the lead regulatory agency, a certificate of completion may be issued for completion of a portion of the RA phase for an operable unit.

#### 7.3.11 Operation and Maintenance

The operation and maintenance (O&M) phase will be initiated at each operable unit when the RA phase has been completed. This phase will include inspections and monitoring as described in the O&M plan. In all cases where waste or contamination is left in place as part of the RA, the O&M phase is expected to be a long-term activity. Where waste or contamination is left in place, the operable unit will be evaluated by the lead regulatory agency at least every 5 years during the O&M phase to determine whether continued O&M activity is indicated or further RA is required. The lead regulatory agency may conduct more frequent evaluations should data indicate this is necessary to ensure effective implementation of the RA. All O&M data and records obtained to that date, along with any additional information provided by the DOE, will be used in that evaluation.

In cases where all waste or contamination is removed or destroyed, a short period for the O&M phase for specific units within an operable unit may be specified by the lead regulatory agency. The lead regulatory agency may, where appropriate, allow for the O&M phase to be terminated for certain units within an operable unit while requiring O&M to be continued at other units. In these cases, certain units may be considered for delisting in accordance with the NCP, after the O&M phase has been completed.

The O&M plan is a primary document as described in Section 9.0. The schedule for conducting significant steps described in the O&M plan are specified for each operable unit in the work schedule (Appendix D).

# 7.4 RESOURCE CONSERVATION AND RECOVERY ACT PAST-PRACTICE UNIT PROCESS

The RPP processes are the subject of this Section and are governed by the authorized state corrective action program.

# 7.4.1 Resource Conservation and Recovery Act Facility Assessment

For those units that are defined as RPP units, (see definition in Section 7.1), the lead regulatory agency for an operable unit may require the DOE to conduct a RCRA facility assessment (RFA) of all or some of the RPP units within that operable unit. The need for an RFA is based on whether sufficient knowledge exists to determine if an RFI is required. Based on the results of the RFA, the lead regulatory agency may require additional information from the DOE, or it may determine that no further investigation or corrective action is required for any of the RPP units within the operable unit. The project manager for the lead regulatory agency for that operable unit may direct the DOE to conduct a RFI based on results of the RFA.

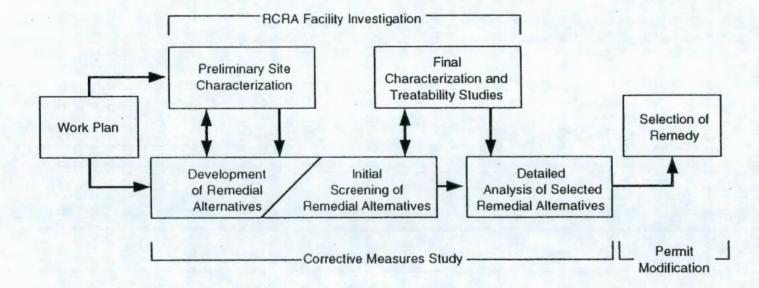
The RFA will be developed in accordance with current applicable regulations, guidance documents, and written policy available at the time the RFA is begun. An RFA report will be prepared documenting the results of the RFA. The RFA report is a primary document as described in Section 9.0. If the lead regulatory agency determines that further investigation is necessary, the project manager for the lead regulatory agency will direct the DOE to prepare an RFI report, as described below.

In some cases, sufficient information may already exist that indicates that further investigation will be required. In these cases the RFA process will be bypassed and effort will be focused on the RFI/CMS. Figure 7-5 shows the normal sequence of events that occur during the RFI/CMS process.

# 7.4.2 Resource Conservation and Recovery Act Facility Investigation

Each RCRA Facility Investigation (RFI) will address all units within a specific operable unit, as identified in the RFI/CMS work plan. Certain operable units also contain TSD units, primarily land disposal units, that are to be investigated and managed in conjunction with past-practice units. The information necessary for performing RCRA closures within an operable unit will be provided in coordination with various RFI/CMS documents as discussed in Section 5.5. The RFI/CMS work plan will be functionally equivalent to an RI/FS work plan (see Section 7.3.2). Timing for submittal of the work plan will be in accordance with the work schedule (Apperdix D).

An RFI report will be prepared by the DOE, and it will document the results of the RFI. The RFI report is a primary document as described in Section 9.0. The schedule for conducting the RFI will be specified for each operable unit in the work schedule (Appendix D) and integrate any planned facility dispositioning in accordance with Section 8.3. The parties agree that the information obtained through the RFI must be functionally equivalent to information gathered in the CERCLA process through the RI Phases I and II, as described in Sections 7.3.3 and 7.3.6.



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Figure 7-5. Overview of the RCRA Facility Investigation/Corrective Measures Study Process.

Based on the results of the RFI, the lead regulatory agency may determine that no further investigation or corrective action is required for each RPP unit in an operable unit. The project manager from the lead regulatory agency for that operable unit may direct the DOE to conduct a CMS based on results of the RFI.

#### 7.4.3 Corrective Measures Study

A Corrective Measures Study (CMS) shall be prepared by the DOE and will include an identification and development of the corrective measure alternative(s), an evaluation of these alternatives, and a justification for the recommended alternative. The CMS will include development of a cost estimate for each alternative considered.

A CMS report documenting the results of the study will be prepared by the DOE. The CMS report is a primary document as described in Section 9.0. The schedule for conducting the CMS will be specified for each operable unit in the work schedule (Appendix D). The CMS report will become the basis for revision of the RCRA permit through the modification or revocation and reissuance processes described in Section 6.2. The parties agree that the information obtained through the CMS must be functionally equivalent to information gathered in the CERCLA process through the FS Phases I, II, and III as described in Sections 7.3.4, 7.3.5, and 7.3.7.

The lead regulatory agency for the operable unjt shall continue its oversight role through the corrective measures implementation (CMI) phase and through any long-term monitoring or maintenance phase that is specified in the CMI work plan.

#### 7.4.4 Corrective Measures Implementation

The DOE will initiate, maintain progress toward completion of, and complete any necessary corrective action for all RPP units within each operable unit in accordance with the CMI work plan. This will be done in accordance with current applicable regulations, guidance documents, and written policy available at any time during the corrective action process. It is agreed by the parties that the content of the CMI work plan will be considered to be functionally equivalent to that of the RA work plan described in Section 7.3.10.

The CMI work plan and the corrective measures design (CMD) report, which are produced as part of the CMI phase, are primary documents as described in Section 9.0. The schedule for developing the CMI work plan and conducting the CMI will be specified for each operable unit in the work schedule (Appendix D). The CMI phase will be conducted in accordance with the schedule of compliance specified in the RCRA permit and the work schedule (Appendix D).

Upon satisfactory completion of the CMI phase as described in the CMI work plan for a given operable unit, the lead regulatory agency shall issue a certificate of completion to the DOE for that operable unit. At the discretion of the lead regulatory agency, a certificate of completion may be issued for completion of a portion of the CMI phase for an operable unit.

#### 7.4.5 Offsite Releases and Corrective Action

In the event that hazardous constituents or contamination from a landfill unit, surface impoundment, or waste pile is found to have migrated beyond the boundaries of the Hanford Site, the lead regulatory agency may require that corrective action for such contamination be conducted. Corrective action authority will be implemented through a schedule of compliance. The DOE shall make every reasonable effort to gain access to investigate and remediate offsite contamination. The DOE will document attempts to attain offsite access for investigative work and corrective action in such cases, in accordance with the access provisions as specified in Article XXXVII of the Agreement. Where necessary to accomplish offsite RA, such releases may be addressed by the lead regulatory agency under CERCLA authority.

The DOE will initiate, maintain progress toward completion of, and complete any offsite corrective action required by the lead regulatory agency, in accordance with the time frames specified in the work schedule (Appendix D) and in accordance with current applicable regulations, guidance documents, and written policy available at any time during the corrective action process.

#### 7.5 CLEANUP REQUIREMENTS

In accordance with Section 121(d) of CERCLA, the DOE will comply with all ARARs when hazardous substances, pollutants, or contaminants are to remain onsite as part of RAs. These requirements include cleanup standards, standards of control, and other substantive environmental protection requirements and criteria for hazardous substances as specified under Federal or State laws and regulations. The parties intend that ARARs, as appropriate, will apply at units being managed under the RPP program at the Hanford Site to ensure continuity between the RCRA and CERCLA authorities.

"Applicable requirements" are those cleanup standards, standards of control, and other substantive environmental protection requirements, criteria, or limitations promulgated under Federal or State law. These requirements specifically address a hazardous substance, pollutant, contaminant, hazardous waste, hazardous constituent, RA, location, or other circumstance at the Hanford Site.

"Relevant and appropriate requirements" are those which do not meet the definition of applicable requirements, yet pertain to problems or situations similar to those encountered in the cleanup effort at the Hanford Site. Such requirements must be suited to the unit under consideration and must be both relevant and appropriate to the situation.

The ARARs are classified into three general categories as follows:

- Ambient or chemical-specific requirements. These are established numeric criteria for various constituents. These criteria are usually set from risk-based or health-based values or methodologies
- <u>Performance</u>, <u>design</u>, <u>or other action-specific requirements</u>. These are usually technology or activity-based requirements or limitations on actions taken with respect to a given hazardous substance or hazardous constituent

 <u>Location-specific requirements</u>. These are restrictions placed on the concentration of hazardous substances or hazardous constituents or on the conduct of activities solely because they occur in special locations.

In addition to ARARs, certain non-promulgated Federal or State criteria, advisories, guidance, and proposed standards may be used to establish cleanup standards. These "to-be-considered" criteria can be imposed if necessary to assure protection of human health and the environment but are not necessarily legally binding. These criteria will be specified by the lead regulatory agency in cases where an ARAR does not exist, or in cases where the lead regulatory agency does not believe the ARAR is protective of human health and the environment given the site specific conditions.

For units which are selected for abatement actions or interim actions, as described in Sections 7.2.3 and 7.2.4, ARARS will be applied, where appropriate, recognizing that these units will later be subject to ARARS during the final remedial or corrective action process.

Compliance with an ARAR may be waived in certain circumstances, as specified in current EPA guidance on cleanup requirements. Waivers will be limited to the following situations:

- Cases in which the remedy selected is only part of a total remedial action that will satisfy the ARAR when completed.
- Cases in which compliance with an ARAR will result in a greater risk to human health and the environment than an alternative option.
- Cases in which compliance with an ARAR is technically impracticable from an engineering perspective.
- Cases in which alternative treatment methods to those specified as ARARs have been shown to result in equivalent standards of performance.
- With respect to a State standard, requirement, criteria, or limitation, the State has not consistently applied procedures to establish a standard, requirement or criteria or demonstrated the intention to consistently apply the standard, requirement, criteria, or limitation in similar circumstances at other RAs.

Federal statutes, regulations, and "to-be-considered" criteria from which cleanup requirements will be developed are included in the current EPA guidance document, "CERCLA Compliance with Other Laws Manual." The following list identifies the key state statutes and regulations from which cleanup requirements will be developed for the Hanford Site. This list is not intended to be inclusive; other standards may be applicable on a case-by-case basis. In addition, this list can be expanded as new State statutes and regulations become effective:

 Washington State Environmental Policy Act--Chapter 43.21C RCW, and implementing regulations; Guidelines Interpreting and Implementing the State Environmental Policy Act--197-11 WAC

 Water Well Construction Act--Chapter 18.104 RCW, and implementing regulations;

Minimum Standards for Construction and Maintenance of Water Wells--173-160 WAC

- Washington Clean Air Act--Chapter 70.94 RCW
- Solid Waste Management, Recovery and Recycling Act--Chapter 70.95 RCW, and implementing regulations;

Minimum Functional Standards for Solid Waste Handling--173-304 WAC

 Nuclear Energy and Radiation Act--Chapter 70.98 RCW, and implementing regulations;

Standards for Protection Against Radiation--

Licensing Requirements for Land Disposal of Radioactive Waste--402-61 WAC

Monitoring and Enforcement of Air Quality and Emission Standards for Radionuclides--402-80 WAC

 Hazardous Waste Management-Chapter 70.105 RCW, and implementing regulations;

Dangerous Waste Regulations--173-303 WAC

 Model Toxics Control Act--Chapter 70.105D RCW, and implementing regulations;

Model Toxics Control Act Cleanup Regulation--173-340 WAC

- Washington State Water Code--Chapter 90.03 RCW
- Regulation of Public Groundwaters--Chapter 90.44 RCW
- Water Pollution Control Act--Chapter 90.48 RCW, and implementing regulations;

Water Quality Standards for Water of the State of Washington--173-201 WAC

State Waste Discharge Program--173-216 WAC

Underground Injection Control Program--173-218 WAC

National Pollution Discharge Elimination System Permit Program--173-220 WAC

- Water Resources Act of 1971--Chapter 90.54 RCW
- Shoreline Management Act--Chapter 90.58 RCW and implementing regulations, 173-14 through 173-22 WAC

The DOE shall use the Federal and State sources of information, as mentioned above, in developing proposed ARARs during the RI/FS (or RFI/CMS) process. The detailed documentation of ARARs shall be provided in an appendix to the FS Phase III Report (or CMS report).

The lead regulatory agency for each CERCLA operable unit shall prepare a summary of the rationale for selection of ARARs for the ROD. The lead regulatory agency of each RPP operable unit shall prepare a summary of the rationale for selection of the ARARs for the fact sheet that will accompany the CMS report (including permit modification or permit revocation and reissuance, as applicable).

In the event that new standards are developed subsequent to initiation of RA at any operable unit, and these standards result in revised ARARs or "to-be-considered" criteria, these new standards will be considered by the lead regulatory agency as part of the review conducted at least every five years under Section 121(c) of CERCLA.

#### 7.6 NATURAL RESOURCE TRUSTEESHIPS

Section 107 of CERCLA imposes liability for damages for injury to, destruction of, or loss of natural resources. It also provides for the designation of Federal and State trustees, who shall be responsible for, among other things, the assessment of damages for injury to, destruction of, or loss of natural resources. Current regulations concerning such trustees are in the NCP, 40 CFR Part 300, Subpart G.

The DOE shall notify appropriate Federal and State natural resource trustees as required by section 104(b)(2) of CERCLA and Section 2(e)(2) of Executive Order 12580.

In addition to DOE, the relevant Federal trustees for the Hanford Site are the U.S. Department of Commerce and the U.S. Department of the Interior (DOI). Their respective roles are described below.

#### 7.6.1 National Oceanic and Atmospheric Administration

The National Oceanic and Atmospheric Administration (NOAA) acts on behalf of the Secretary of Commerce as a Federal trustee for living and nonliving natural resources in coastal and marine areas. Resources of concern to the NOAA include all life stages, wherever they occur, of fishery resources of the exclusive economic zone and continental shelf and anadromous species throughout their ranges. For resources in coastal waters and anadromous fish streams, the NOAA may be a co-trustee with the DOI, other Federal land management agencies, and the affected States, and Indian Tribes. Chinook,

coho, and sockeye salmon, as well as steelhead trout, are the anadromous species that utilize the Hanford Reach for spawning, rearing, foraging, and as a migratory corridor.

Under an existing interagency agreement with the EPA, the NOAA will provide a Preliminary Natural Resource Survey (PNRS) to the EPA by December 31, 1988, detailing trust species of concern at the four aggregate areas at the Hanford Site (the 100, 200, 300, and 1100 Areas). The NOAA will also provide technical review, at the operable unit level, of RI/FS work plans, RI reports, FS reports, RD reports, and RA work plans, as appropriate. These technical reviews will be done to ensure that potential impacts to anadromous fish in the Hanford Reach are addressed in the CERCLA process. The NOAA will coordinate with other natural resource trustees, as appropriate, to preclude duplication of effort. The DOE will provide the NOAA with a copy of documents listed above at the time of submission to the EPA. The NOAA will provide technical comments to the EPA for incorporation and transmittal to the DOE. Timing for submittal of comments by the NOAA will be consistent with the time frames specified for primary document review in Section 9.2. The PNRS provided by the NOAA and each set of technical comments will become part of the administrative record.

#### 7.6.2 Department of the Interior (DOI)

The DOI responsibilities as a natural resource trustee will be shared by three separate bureaus within the DOI. These bureaus are the U.S. Geological Survey, U.S. Fish and Wildlife Service, and the Bureau of Indian Affairs. Each bureau will prepare a report for DOI based on its respective responsibility as a natural resource trustee. The DOI will consolidate these reports and issue a PNRS. The DOI will coordinate with other natural resource trustees, as appropriate, to preclude duplication of effort. The PNRS conducted by DOI will become part of the administrative record.

The PNRS will be completed under an existing interagency agreement between the DOI and the EPA. If further work beyond the PNRS is undertaken by the DOI, such work will be funded through DOI sources.

#### 7.7 HEALTH ASSESSMENTS

The Agency for Toxic Substances and Disease Registry (ATSDR) is a part of the U.S. Public Health Service, which is under the U.S. Department of Health and Human Services. The ATSDR was created by Congress to help implement the health-related sections of laws that protect the public from hazardous waste and environmental spills of hazardous substances. The CERCLA requires ATSDR to conduct a health assessment within one year following proposal to the NPL for any site proposed after October 17, 1986.

The ATSDR health assessment is the result of the evaluation of data and information on the release of hazardous substances into the environment. Its purpose is to assess any current or future impacts on public health, to develop health advisories or other health recommendations, and to identify studies or actions needed to evaluate and mitigate or prevent adverse human health effects.

The ATSDR will prepare a preliminary health assessment for each of the four Hanford NPL areas (the 100, 200, 300, and 1100 Areas). Since the RI Phase I reports for these areas will not be available within one year following the proposal of Hanford to the NPL, these preliminary health assessments will be based on the best available information.

As additional information becomes available, and as appropriate, ATSDR may, at its discretion, expand these preliminary health assessments into full health assessments adding to the overall characterization of the site, or prepare addenda to the health assessments addressing the public health impact of either individual or a combination of operable units at the site.

The health assessments, including any addenda, will become part of the administrative record.

### 7.8 QUALITY ASSURANCE

The level of quality assurance and quality control (QA/QC) for the collection, preservation, transportation, and analysis of each sample which is required for implementation of this Agreement shall be dependent upon the data quality objectives for the sample. Such data quality objectives shall be specified in RI/FS or RFI/CMS work plans or in other work plans that may be used to describe sampling and analyses at CERCLA or RCRA past-practice units.

The QA/QC requirements shall range from those necessary for non-laboratory field screening activities to those necessary to support a comprehensive laboratory analysis that will be used in final decision-making. This range of QA/QC options is included in the "Data Quality Strategy for Hanford Site Characterization" (as listed in Appendix F). This document is subject to approval by EPA and Ecology.

Based upon the data quality objectives, the DOE shall comply with EPA guidance documents for QA/QC and sampling and analysis activities which are taken to implement the Agreement. Such guidance includes:

- "Guidelines and Specifications for Preparing Quality Assurance Program Plans" (QAMS-004/80);
- "Interim Guidance and Specifications for Preparing Quality Assurance Project Plans" (QAMS-005/80); and
- "Data Quality Objectives for Remedial Response Activities" (EPA/540/G-87/003 and 004).

In regard to quality assurance requirements for construction of land disposal facilities, DOE shall comply with "Technical Guidance Document: Construction Quality Assurance for Land Disposal Facilities" (EPA/530-SW-86-031).

For analytical chemistry and radiological laboratories, the QA/QC plans must include the elements listed in "Guidance on Preparation of Laboratory Quality Assurance Plans" (as listed in Appendix F). DOE shall submit laboratory QA/QC plans to EPA and Ecology for review as secondary documents prior to use of that laboratory. In the event that DOE fails to demonstrate to the lead regulatory agency that data generated pursuant to this Agreement

was obtained in accordance with the QA/QC requirements of this section, including laboratory QA/QC plans, DOE shall repeat sampling or analysis as required by the lead regulatory agency. Such action by the lead regulatory agency shall not preclude any other action which may be taken pursuant to this Agreement. For other data, the lead regulatory agency may request DOE to provide QA/QC documentation. Any such data that does not meet the QA/QC standards required by this section shall be clearly flagged and noted to indicate this fact.

#### 8.0 FACILITY DECOMMISSIONING PROCESS

#### 8.1 INTRODUCTION

The facility decommissioning process defines the approach by which DOE, with involvement of the lead regulatory agencies, will take a facility from operational status to its end state condition (final disposition) at Hanford. This is accomplished by the completion of facility transition, surveillance and maintenance (S&M) and disposition phase activities. The process is designed to integrate DOE-HQ guidance as specified by the U.S. Department of Energy Office of Environmental Restoration (EM-40) Decontamination and Decommissioning Guidance Document, XX/XX/94 (hereafter referred to as the EM-40 Guidance Document) and facilitate compliance with environmental regulations, including RCRA closure, post closure and CERCLA remedial action requirements. Facility decommissioning at Hanford will proceed on a prioritybased path that results in an expedient and cost efficient transition of facilities to a safe and stable condition that presents no significant threat of release of hazardous substances into the environment and no significant risk to human health and the environment. The methodology allows for cases where higher priority Hanford cleanup activities warrant deferring regulated unit closure actions until prioritization decisions are made to proceed with the disposition phase.

Notwithstanding any other provision of Section 8.0, EPA and Ecology reserve the right to require closure in accordance with Federal and State hazardous waste law, and the Agreement, and to require response or corrective actions in accordance with RCRA and CERCLA and the Agreement, at any time. During the facility decommissioning process, DOE shall comply with all applicable environmental, safety and health, and security requirements.

### 8.1.1 Background

The DOE consolidated virtually all of its waste management, remedial action and decontamination and decommissioning (D&D) program activities in 1989 into the Office of Environmental Management (EM). Within EM, the Office of Environmental Restoration was assigned responsibility for performing remedial actions, S&M and dispositioning activities for DOE facilities.

With the down-sizing of both nuclear weapons inventories and nuclear material production capabilities, the DOE-HQ established the Office of Facility Transition in mid-1992. This office is chartered with management of the transition from operational status to shutdown status for the numerous facilities used for nuclear material production or otherwise involved in the DOE nuclear program.

#### 8.1.2 Applicability

This section applies to the transition, the surveillance and maintenance, and/or the disposition of key facilities located on the Hanford Site that are not fully addressed as part of Section 6.0 (TSD Process) or Section 7.0 (Past-Practice Process) of this Action Plan. Facilities that the parties agree are subject to Section 8.0 will be decommissioned in accordance with the provisions of this section, and any milestones established specific to those facilities. If there is a conflict between the provisions of this section and

of a specific milestone, the provisions of the milestone will prevail. This section does not apply to the following:

- Any waste disposal unit (e.g., crib, pond, ditch, landfill)
- RCRA treatment or storage units either closed or scheduled for closure under Section 6.0 that result in the final disposition of the facility, or result in a remaining facility that does not qualify as a "key facility" per the definition below.
- Any facility which is fully addressed as part of a past-practice operable unit under Section 7.0 (i.e., N-area pilot project), or which is addressed under Section 7.0 to a condition which results in a remaining facility that does not qualify as a "key facility" per the definition below.
- Facilities on the Hanford Site transferred from the Operations phase to the S&M phase prior to 1992 (prior to facility transition projects). These facilities are collectively defined in this document as S&M surplus facilities. Management of S&M surplus facilities during the S&M and disposition phases is discussed in Section 8.9.

Key facilities managed under Section 8.0 include facilities currently identified for transition (i.e., PUREX, UO3 and FFTF), existing operating facilities, and other facilities that may be constructed in the future.

Key facilities are identified on a case by case basis, generally based upon the following criteria:

- Facilities that do not fall into any of the categories summarized in the bullets above,
- Facilities that will undergo a surveillance and maintenance period greater than 180 days with hazardous substances to be left in place,
- Facilities where physical closure actions must be performed in conjunction with facility disposition, and/or
- Facilities that may be addressed in conjunction with any other facility which qualifies as a key facility.

Upon identification as a key facility, EPA and Ecology will designate a lead regulatory agency in accordance with Section 5.6.

Key facilities do not include uncontaminated structures (i.e. contains no hazardous substances), or facilities which are fully dispositioned following a decision to remove them from use.

Only with the agreement of DOE and the lead regulatory agency may key facilities (or portions thereof) be used for alternative beneficial uses, and be addressed independent of Section 8.0.

# 8.1.3 Decommissioning Relationships and Key Planning Documentation

Table 8-1 shows the relationship between phases, processes and planning documentation that support the overall decommissioning process. A general description of key planning documents is included here. Additional information is provided in following text specific to the individual phases. Definitions specific to the facility decommissioning process are included in Appendix A of this document. The process described in Section 9.3 will be used to modify applicable documentation.

Table 8-1 Decommissioning Process Relationships

DECOMMISSIONING PHASES	FACILITY PROCESSES	KEY PLANNING DOCUMENTS
Transition	Stabilization Deactivation Surveillance Maintenance Decontamination	Project Management Plan
		Facility Transition End Point Criteria Document
		Preclosure Work Plan
Surveillance and Maintenance	Surveillance Maintenance Deactivation* Decontamination*	Surveillance and Maintenance Plan
Disposition	Decontamination Dismantlement Entombment Closure Site Restoration	Project Management Plan
		Facility Disposition End State Criteria Document
		RCRA Closure Plan**

<sup>\*</sup> Completed on a case-by-case basis to further reduce facility surveillance and maintenance expenses.

Facility Transition End Point Criteria Document: A document developed during the transition phase that establishes the physical state of the systems and spaces within the facility to be achieved at the end of the transition phase. This document is used to satisfy programmatic requirements to transition to the S&M phase. The actual condition of the facility at the end of transition will be documented as part of the S&M plan.

RCRA Closure Plan: A plan developed to specifically address and ensure compliance with the requirements of Washingtons' Dangerous Waste Regulations, Chapter 173-303, Washington Administrative Code (WAC) for units in the facility used for treatment, storage or disposal of dangerous wastes. Closure plans consist of nine basic chapters and are consistent with the format currently used for all Hanford Site closure activities. TSD unit closure

<sup>\*\*</sup> RCRA Closure Plan applicable to TSD units within the facility.

plans will be submitted to Ecology during the disposition phase planning process, and will be coordinated with approved disposition end state criteria.

<u>Preclosure Work Plan:</u> Prior to closure plan submittal, a preclosure work plan will be submitted to Ecology during the transition phase. This preclosure work plan will contain, but is not limited to elements summarized in Table 8-2. This preclosure work plan is based in part on the facility transition end point criteria document and S&M plan. The transition end point criteria document and the S&M plan are considered part of the preclosure work plan as they pertain to information related to TSD units.

Project Management Plan: An internal DOE management plan prepared to aid in governing the successful completion of a project. The Project Management Plan (PMP) defines DOE and DOE contractor organization and responsibilities for executing the project. It outlines the work breakdown structure for the activities, clearly identifying the scope of work based on the technical criteria established. This document incorporates cost and schedule planning. The PMP is used to establish cost controls and milestones for tracking and reporting status on key processes and activities from start to finish of the phase. Project Management Plans are prepared during the transition and disposition phases.

Surveillance and Maintenance Plan: A plan outlining facility specific activities taken to address essential systems monitoring, maintenance and operation requirements necessary at a transitioned facility to ensure efficient, cost effective maintenance of the facility in a safe condition that presents no significant threat of release of hazardous substances into the environment and no significant risk to human health and the environment until final disposition is completed.

<u>Facility Disposition End State Criteria Document:</u> A document developed during the disposition phase that establishes the physical state of systems and spaces within the facility to be achieved at the conclusion of the disposition phase. This document may be incorporated into another disposition planning document.

#### 8.2 FACILITY OPERATIONS

Facility operations precede the decommissioning process and are briefly addressed in this section. Prior to receiving a formal shutdown notice from DOE-HQ, facilities that do not have a future mission may begin preparing for the transition phase of the decommissioning process. Preparation may include conducting final process vessel clean out runs in order to expedite transition phase activities and to avoid the necessity for operational permitting at process vessels containing hazardous materials for storage and/or treatment following a determination that their contents are dangerous wastes. Facility personnel may also initiate preliminary development of transition end point criteria to describe the physical state of the systems and spaces within the facility at the end of the transition phase. The process of developing transition end point criteria will be structured to specifically incorporate regulatory, tribal and stakeholder input and involvement. Once a shutdown order has been received or a separate agreement is made by the three parties, the facility will enter the transition phase as described in Section 8.5.

#### 8.3 DECOMMISSIONING PROCESS PLANNING

The parties agree that sufficient up front planning for facilities that will undergo decommissioning is necessary to support the budget planning process and to facilitate integration and prioritization of decommissioning with other Hanford cleanup efforts. The parties also recognize, however, that there may be unanticipated situations in which it will be necessary to take immediate actions to abate significant threats to human health or the environment.

#### 8.3.1 Long-Term Planning

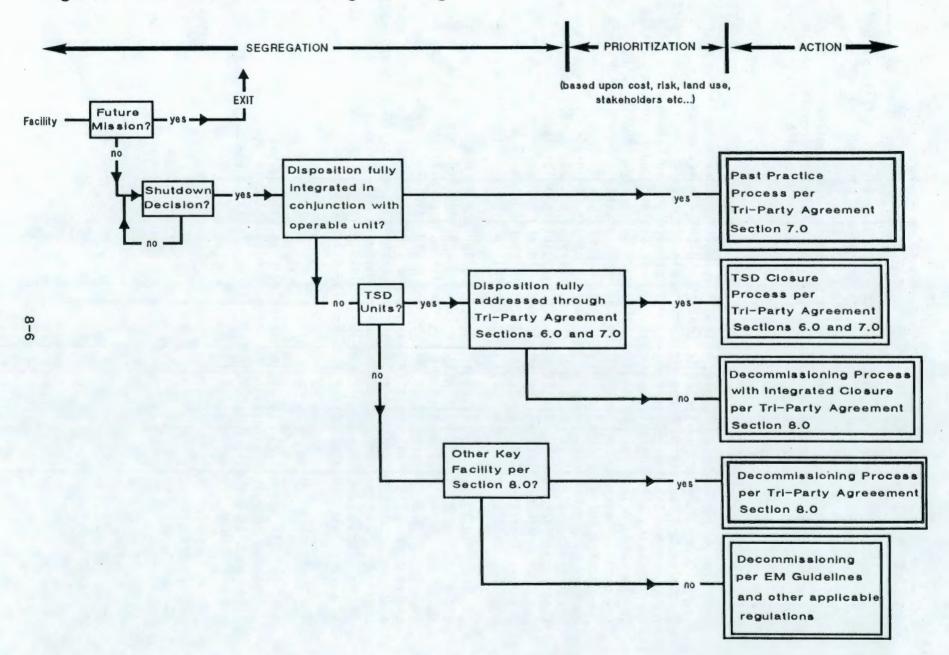
DOE will develop and submit a long-term facility decommissioning plan covering key Hanford facilities to Ecology and EPA for review by June, 1996. This plan and associated Agreement commitments (including those made pursuant to Subsection 8.3.2 below) are expected to provide the mechanism by which the three parties will address decommissioning of existing and future facilities on the Hanford Site. The plan will categorize facilities through a series of key decision-making questions such as the logic process shown in Figure 8-1. The parties recognize that there are a large number of facilities on the Hanford Site. However, many of the facilities are administrative and/or small in nature and will fall into the category of non-key facilities. A listing of these non-key facilities will be maintained for information purposes. Many facilities are associated with and may be addressed as part of a larger facility. In these cases, facility complexes will be identified as one key facility for the purpose of implementing the decommissioning process.

For facilities identified as candidates for the decommissioning process under this section, the plan will include a long-term road map depicting the approximate time periods that the key facilities (or facility complexes) are expected to undergo transition, surveillance and maintenance, and/or disposition. The road map is for use by the three parties to assist in the planning process in order to integrate and prioritize work, and is not considered a committed schedule. Such commitments will be established under the Agreement (see Section 8.3.2 below). This plan will be updated biennially as part of the biennial review (see Section 8.3.3 below).

### 8.3.2 Negotiations

The long-term facility decommissioning plan will be used by the three parties as an aid in scheduling future decommissioning related negotiations. Such negotiations will be coordinated with the facility planning phases discussed under Paragraphs 8.5 and 8.7.

Figure 8-1 Predecommissioning Planning



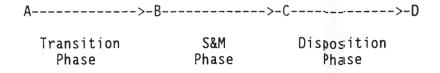
# 8.3.3 Biennial Review and Update

The three parties will conduct a biennial review of facility/unit status, the long-term facility decommissioning plan, and associated Agreement commitments, and discuss current priorities and assess what changes are necessary. Based on this review and latest DOE guidance associated with the future use of facilities, DOE will update and submit the long-term facility decommissioning plan and any draft changes addressing proposed Agreement modifications to EPA and Ecology for review as appropriate.

## 8.4 GENERAL DECOMMISSIONING PROCESS

The typical facility decommissioning process, shown in Figure 8-2, depicts the sequential phases a facility undergoes following facility operations and includes transition, surveillance and maintenance (S&M), and disposition. This process is normally initiated following a decision from DOE-HQ to shut down a subject facility and proceed with decommissioning activities. The process time frame is established by milestones and associated target actions negotiated as part of the Agreement, and in most cases will be established one phase at a time.

Figure 8-2 Typical Decommissioning Process



- A = Marks the end of the operational phase. A determination has been made by DOE-HQ that the facility is a surplus facility (i.e., formal letter documentation).
- B = Marks the end of the transition phase. The preclosure work plan, surveillance & maintenance (S&M) plan and transition end point criteria document are updated as required, and approved by the DOE program responsible for S & M, and by the lead regulatory agency. The DOE review will include a check for transition end point criteria adequacy and equivalency to EM acceptance criteria objectives. Following receipt of necessary approvals, this point marks the start of the S&M phase as an interim period prior to DOE initiation of the disposition phase.
- C = Decision to proceed with disposition phase.
- D = Completion of disposition phase in compliance with applicable or relevant and appropriate requirements and in a condition protective of human health and the environment. (Note: All associated RCRA closure actions are completed at this point.)

Figure 8-2 has been expanded in Figures 8-3 through 8-5 to include individual process steps involved with each of the subject phases. Figures 8-3 through 8-5 identify actions involving regulatory, tribal or public

involvement from those actions or documents requiring specific regulatory approval. Agreement negotiations are shown as part of the transition, S&M and disposition phases. More detailed descriptions of individual phases, actions and documentation are discussed in Sections 8.5 through 8.7.

#### 8.5 TRANSITION PHASE

The transition phase of a facility is initiated when a formal shutdown decision is made by DOE. Figure 8-3 shows a breakdown of the activities associated with the transition phase. The numbers shown in the boxes correspond with the section numbering from this document. Discussion specific to RCRA TSD closure plan preparation and submittal is contained in Section 8.8.

# 8.5.1 Transition Planning

Early in the transition phase, project goals and objectives are developed in conjunction with regulatory, tribal and public input and involvement to enable a mutually agreeable and efficient transition. Vital to the success of this phase is development of transition end point criteria and S&M planning information. Transition end point criteria and S&M planning are discussed in greater detail in Sections 8.5.3 and 8.5.4, respectively. DOE will initiate discussions with the lead regulatory agency, tribes and public to identify issues and develop proposals within three months of an official shutdown notice decision made by DOE-HQ.

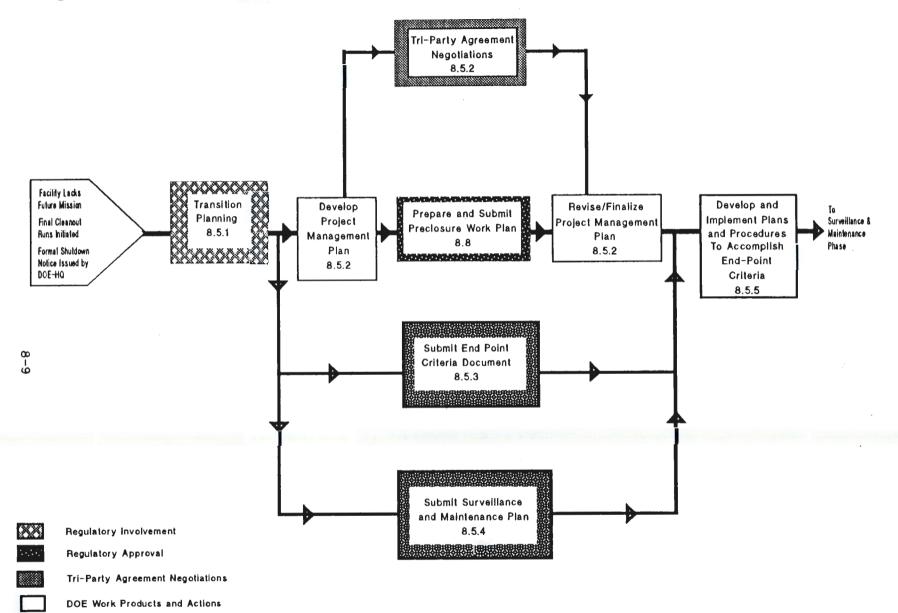
During the transition planning stage, NEPA documentation supporting transition will be initiated as necessary and a preclosure work plan or closure plan will be developed for RCRA TSD units requiring RCRA closure. Where final closure of a unit does not need to be performed in conjunction with key facility disposition, a closure plan will be submitted. Documentation produced during this stage will support protection of human health and the environment and consider waste minimization and pollution prevention opportunities.

## 8.5.2 Project Management Plan

The Project Management Plan (PMP) is prepared to describe how transition phase activities will be managed. The PMP contains work breakdown structures, cost and schedule information, and summarizes major project targets and Agreement milestones. If necessary, a revision to the PMP will be made at the conclusion of the Agreement negotiations to ensure consistency with scheduling agreements. The process of developing and revising the PMP is depicted in Figure 8-3.

Figure 8-3 Transition Phase Breakdown

Regulatory Involvement and Approval In Part



## 8.5.3 Transition End Point Criteria

DOE-HQ has developed a set of generic acceptance criteria for use complex wide as a target for acceptance into the S&M phase. Based on these generic acceptance criteria, facility specific transition end point criteria are developed throughout the transition phase with intent to establish acceptable final conditions of systems (i.e., tanks, piping) and spaces (i.e., rooms, areas) at the end of the transition phase. In general, the acceptance criteria require:

- documentation for the active systems and structural integrity of the facility,
- updated permitting and documented regulatory status that reflects the shutdown, stabilized condition of the facility,
- documentation of remaining hazardous and radioactive material in the facility,
- documentation of and facility history for the shutdown systems, and
- a DOE approved S&M Plan for the facility.

The transition end point criteria are based on the EM acceptance criteria, regulatory, tribal and public input and are tailored specifically to the facility in question. Transition end point criteria will be developed and documented early in the transition phase in conjunction with discussions with the regulators, tribes and stakeholders to facilitate achieving mutually accepted criteria. Aspects of the criteria may evolve during transition necessitating revisions and refinements to the criteria.

Transition end point criteria are applicable to all facilities, and their equipment and systems accepted into a surveillance and maintenance phase. All transition end point criteria will be initially developed to incorporate regulatory, tribal and stakeholder input and values. However, lead regulatory agency approval over transition end point criteria will be specific to regulated units, and/or hazardous substances proposed to remain in the facility after the transition phase is complete. Transition end point criteria will take the form of a document addressing both regulated and non-regulated equipment and systems. This document will be submitted to the lead regulatory agency in conjunction with the preclosure work plan and S&M plan. Transition end point criteria will not be inconsistent with or prejudice the development of acceptable end state criteria. Changes to approved transition end point criteria will be coordinated with the lead regulatory agency, and approved for changes affecting regulated units and hazardous substances that will remain in the facility.

## 8.5.4 Surveillance and Maintenance Plan

A surveillance and maintenance (S&M) plan is developed along with transition end point criteria since the selected transition end point criteria directly dictate actions that will be performed during the S&M phase. The S&M plan describes the facility-specific activities to be taken in order to adequately address monitoring, maintenance and operational requirements for the essential systems at a facility. It will ensure that the facility is

maintained cost effectively and in a safe, stable condition that presents no significant threat of release of hazardous substances into the environment and no significant risk to human health and the environment until final disposition is completed. Although the S&M plan evolves throughout the transition phase, focused efforts and coordination with the lead regulatory agency, tribes and stakeholders are emphasized early in the transition phase to facilitate a mutually agreeable approach to S&M.

The S&M plan will apply to both regulated and non-regulated equipment and systems. Although the S&M plan will be developed to incorporate regulatory, tribal and stakeholder input and values, approval of the S&M plan will be specific to regulated units and hazardous substances in the facility. Post closure care activities will be negotiated with the lead regulatory agency on a case by case basis and incorporated into the S&M plan.

For facilities that contain RCRA TSD units, the S&M plan developed during the transition phase will be submitted to Ecology in conjunction with the preclosure work plan and the latest transition end point criteria document.

# 8.5.5 Proceed with and Complete Transition Activities

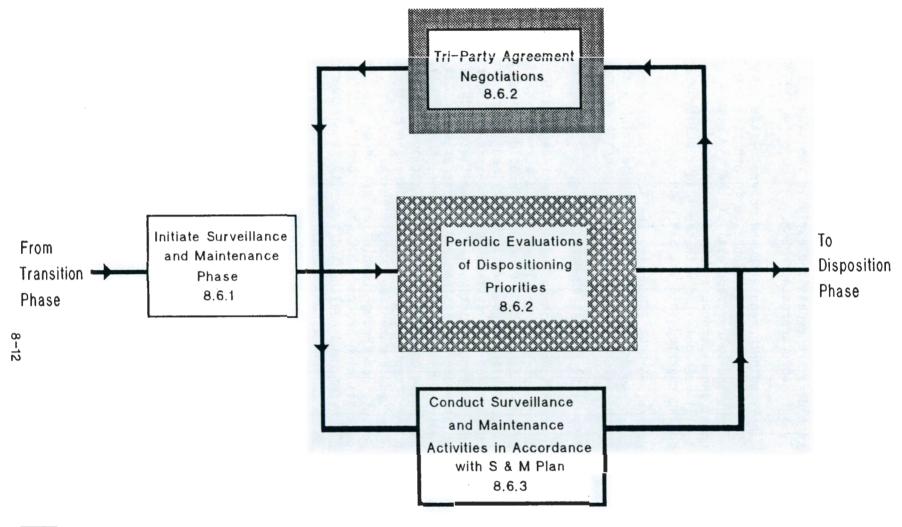
In accordance with transition planning and Agreement negotiations, internal work plans and procedures are developed to aid accomplishing the facility specific transition phase tasks. Procedures provide operational guidance for the workers to achieve the objectives outlined in the facility transition planning documentation. As systems and spaces reach their identified transition end points, S&M activities are initiated consistent with the S&M plan. At the point where all systems and spaces at the facility achieve their respective transition end point conditions, the facility will await transfer to the S&M phase contingent upon verification of achievement of end point criteria (and the acceptance criteria not addressed by the end point criteria). Appropriate records documenting transition related activities will, at a minimum, be maintained through completion of the disposition phase. During the facility decommissioning process, DOE shall comply with all applicable environmental, safety and health, and security requirements.

## 8.6 SURVEILLANCE AND MAINTENANCE PHASE

The surveillance and maintenance (S&M) phase for facilities is conducted in accordance with the S&M plan developed for each facility. The S&M phase is shown in Figure 8-4. The objectives of the S&M phase are to ensure adequate containment of any contaminants left in place and to provide physical safety and security controls and maintain the facility in a manner that will present no significant risk to human health or the environment.

S&M plans will be prepared by the facility during the transition phase and will address (1) facility surveillance (2) facility maintenance, (3) quality assurance, (4) radiological controls, (5) hazardous material protection,

Figure 8-4 Surveillance and Maintenance Phase Breakdown



Regulatory Involvement

Regulatory Approval

Tri-Party Agreement Negotiations

DOE Work Products and Activities

(6) health and safety/emergency preparedness, (7) safeguards and security, and (8) cost and schedule. The S&M plan for S&M surplus facilities will be prepared as specified in EM-40 Guidance Documents. During the facility decommissioning process, DOE shall comply with all applicable environmental, safety and health, and security requirements.

### 8.6.1 Initiation of S&M Phase

The S&M Phase will start after plant operators have verified the transition end points, the lead regulatory agency and DOE-HQ have received the verification, and all appropriate approvals have been made and received. Initiation of the S&M phase is shown as the first box in Figure 8-4.

# 8.6.2 Biennial Evaluations of Disposition Priorities

During the S&M phase, biennial evaluations of long term S&M and disposition plans and schedules will be performed. These evaluations will be performed in conjunction with the biennial reviews discussed in Section 8.3.3 and Agreement negotiations to identify, evaluate and assess the status of Hanford Site priorities as well as tribal and stakeholder values. S&M surplus facilities will be included in the evaluation of disposition priorities.

# 8.6.3 Ongoing S&M Activities

Ongoing S&M activities will be conducted in accordance with the approved S&M plan and associated Agreement commitments until a decision is made by DOE-HQ to initiate the disposition phase, or required by the lead regulatory agency pursuant to the terms of Sections 8.3.3 or 8.1.

## 8.7 DISPOSITION PHASE

The disposition phase is envisioned to be analogous to the transition phase, initiated following a decision by DOE, or may result from a decision by the lead regulatory agency pursuant to the terms of Section 8.1. Figure 8-5 shows a breakdown of the activities associated with the disposition phase. The numbers identified in the boxes correspond with applicable discussion below. Discussion specific to the closure plan revision is deferred to Section 8.8.

## 8.7.1 Disposition Phase Planning

Early in the disposition phase, project goals and objectives are developed in conjunction with lead regulatory agency, tribal and public input and involvement to enable a mutually agreeable and efficient disposition of the facility. Development of any required NEPA documentation and land usage agreements initiate the disposition phase and will be used as an aid in identifying or developing necessary disposition phase activities. A cooperative effort among all parties will be required to establish and revise disposition end state criteria to establish the conditions of facilities or facility areas at the end of the disposition phase consistent with applicable requirements and established NEPA and land use determinations. Disposition end state criteria are discussed in greater detail in Section 8.7.3. DOE will initiate discussions with the lead regulatory agency, tribes and public to identify issues and develop proposals within three months of the DOE-HQ decision to initiate the disposition phase.

# 8.7.2 Project Management Plan

The Project Management Plan (PMP) is prepared to describe how the disposition phase activities will be managed. The PMP contains work breakdown structures, cost and schedule information, and summarizes major project targets and Agreement milestones. If necessary, a revision to the PMP will be made at the conclusion of the Agreement negotiations to ensure consistency with scheduling agreements. The process of developing and revising the PMP is depicted in Figure 8-5.

## 8.7.3 Disposition End State Criteria

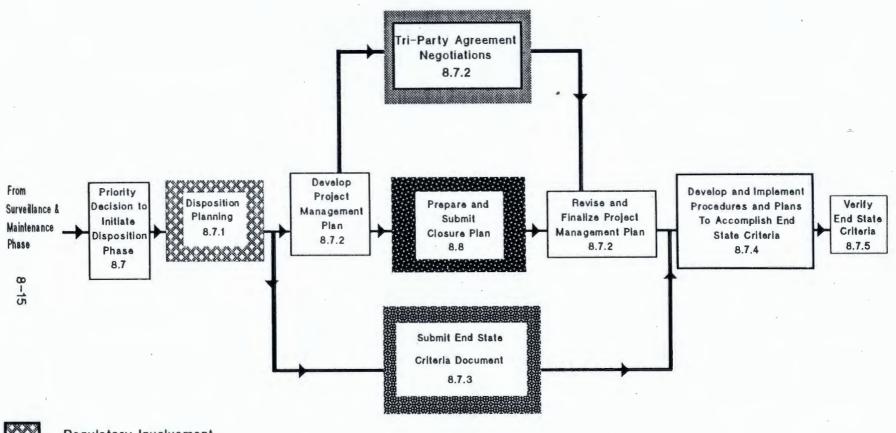
Facility specific disposition end state criteria are developed during the disposition phase with the intent to establish the ultimate acceptable condition of systems and spaces at the end of the disposition phase. Disposition end state criteria will be developed and documented early in the disposition phase in conjunction with the lead regulatory agency, tribes and stakeholders to facilitate mutually acceptable criteria. However, certain aspects of the criteria will evolve during the disposition phase necessitating revision and refinement of the criteria. Aspects of the criteria that are applicable to RCRA TSD units and/or CERCLA hazardous substances shall be developed, revised or refined only with the approval of the lead regulatory agency.

All disposition end state criteria will be initially developed to incorporate lead regulatory agency and stakeholder input and values. The disposition end state criteria will be contained in a document for both regulated and non-regulated equipment and systems. The lead regulatory agency will have approval over disposition end state criteria for regulated RCRA units and hazardous substances proposed to remain in the facility. This document will be submitted to the lead regulatory agency in conjunction with any necessary closure plan.

## 8.7.4 Proceed with and Complete Disposition Phase Activities

In accordance with disposition planning and associated Agreement commitments, internal procedures will be developed to accomplish facility-specific disposition phase tasks. Identified necessary procedures provide operational guidance for the workers to satisfy the objectives outlined in the disposition planning documentation. At the point where all systems and spaces at the facility achieve their respective disposition end state conditions, final disposition is achieved and the end state criteria will be verified. Appropriate records documenting transition and closure related activities will be maintained on file. During the disposition phase DOE shall comply with applicable environmental law, safety and health, and security requirements.

Figure 8-5 Disposition Phase Breakdown



Regulatory Involvement

Regulatory Approval

Tri-Party Agreement Negotiations

DOE Work Products and Actions

Regulatory Involvement and Approval In Part

# 8.7.5 Verification of Disposition End State

During the closeout and verification of the disposition phase, achievement of the disposition end state criteria will be verified. DOE will perform verification surveys and samplings. Independent verification will be performed by a sub-contractor to DOE specifically retained to verify if disposition end states have been achieved. Verification will specifically tie to closure planning requirements for applicable regulated units. All verification results, regardless of the methods used, will be available to the public.

# 8.7.6 Integration of Disposition Phase with Operable Units

As shown on Figure 8-1, some facilities will be addressed fully in conjunction with operable unit activities under Section 7.0. These facilities are not addressed in this section. For those facilities that are only partially addressed as part of the operable unit activity, the remaining disposition phase activities will be planned and conducted under this section. This may include the management of soil contamination not accessible during the operable unit activity.

In the event facility disposition proceeds prior to the operable unit activity, the disposition of any contaminated soils and site restoration activities may be deferred to follow-on operable unit activities under Section 7.0, and not addressed in this section.

## 8.8 PRECLOSURE WORK PLAN AND RCRA CLOSURE PLAN

Washingtons' HWMA and associated regulations contained in Chapter 173-303 WAC require owners or operators of dangerous waste treatment, storage or disposal facilities to have a written and approved closure plan. DOE, Ecology and EPA have established a mutually acceptable closure plan format that is being used currently for Hanford Site closure plans. The basic closure plan format contains the following nine chapters: 1) Introduction, 2) Facility Description, 3) Process Information, 4) Waste Characteristics, 5) Groundwater Monitoring, 6) Closure Strategy and Performance Standards, 7) Closure Activities, 8) Postclosure Plan, and 9) References.

The nature of the decommissioning process has led DOE, Ecology and EPA to evaluate the timing of RCRA closure at key facilities. The phased decommissioning process combined with the requirements of NEPA and future land use determinations will often make completion of RCRA closure activities during the transition or S&M phases impracticable. In cases where timely completion of TSD unit closure is practicable, DOE will prepare, and submit to Ecology for review and approval, a complete closure plan for implementation during the transition phase. In cases where physical conditions and/or unknowns prevent timely completion of closure, DOE will prepare, and submit to Ecology for review and approval, a preclosure work plan for implementation during the transition phase. The preclosure work plan will detail actions to be completed during the transition phase in order to facilitate full RCRA closure in the future. These efforts may include removal of dangerous wastes and hazardous substances and/or removal or decontamination of equipment or structures contaminated with dangerous wastes or hazardous substances. The content of the preclosure work plan and its relationship to the RCRA closure plan are summarized in Table 8-2. The transition phase will not be considered

complete until DOE has either completed RCRA closure and/or implemented a lead regulatory agency approved preclosure work plan. In cases where closure is not completed during the transition phase, the S&M plan for the key facility will address RCRA compliance. It is anticipated that, for such units, RCRA closure will be conducted during the disposition phase, however, Ecology may, at any time, choose to accelerate closure timing and/or initiate final closure in order to assure timely protection of human health and the environment. Agreement negotiations during the transition and disposition phases will establish Agreement milestones and target dates applicable to preclosure and closure activities.

In addition to its review and approval of RCRA closure plans and preclosure work plans, the lead regulatory agency will have regulatory involvement in establishing acceptable transition end point and disposition end state criteria for the facility systems and spaces. The transition end point and disposition end state criteria documents will be submitted to the lead regulatory agency with closure plans and/or preclosure work plans during the transition and/or disposition phases as appropriate (e.g., if closure will occur during the transition phase, the transition end point criteria document will be submitted with the RCRA closure plan). The lead regulatory agency will also have involvement in and receive an S&M plan for each key facility. The S&M plan will be developed by DOE and submitted to the lead regulatory agency during the transition phase in conjunction with the transition end point criteria document and closure plan or preclosure work plan. When approved, the S&M Plan will document hazardous substances to be left at the facility during the S&M phase.

#### 8.9 SURVEILLANCE AND MAINTENANCE SURPLUS FACILITIES MANAGEMENT

Facilities on the Hanford Site transferred from the Operations phase to the S&M phase prior to 1992 (prior to facility transition projects) are collectively defined in this document as S&M surplus facilities.

## 8.9.1 Surveillance and Maintenance Phase

S&M surplus facilities are currently in the S&M phase, and will continue to be managed in accordance with the EM-40 Guidance Document and other applicable regulations. This entails using the existing S&M procedures to control day to day activities and the preparation of an S&M plan (per Paragraph 8.6) to describe the overall management of the facilities until disposition phase activities commence. The ongoing S&M activities are designed to maintain the facilities in a safe and stable condition, assuring there are no significant threats of release of hazardous substances into the environment and no significant risks to human health and the environment.

#### 8.9.2 Disposition Phase

Disposition phase schedules for S&M surplus facilities will be consistent with the approach discussed in Section 8.3. This approach will integrate S&M surplus facility disposition phase actions with Section 7.0 operable unit remedial actions, as appropriate.

Cpt	Description	Preclosure Work Plan Submitted During Transition Phase	Closure Plan Submitted During Disposition Phase
1	Introduction	ALL	ALL
2	Facility Description	ALL .	ALL
3	Process Information	ALL	ALL
.4	Waste Character- istics	ALL	ALL
5	Groundwater Monitoring	Documents the nature and extent of groundwater contamination that has occurred and describes actions necessary during the S&M phase	Documents details of groundwater investigation, necessary remediation and monitoring (may be conducted in conjunction with applicable CERCLA operable unit and RI/FS process)
6	Closure Strategy and Performance Standards	Documents the preclosure strategy, end point criteria performance standards and necessary transition phase preclosure activities. This chapter will contain a qualitative assessment of anticipated closure and postclosure outcomes, if known (i.e., clean closure or otherwise)	Remaining details including closure of secondary containment, end state of systems and material left in place, final disposition of vessels, end state of canyon structures and integration with CERCLA remedial activities. Includes cross references to surveillance and maintenance plan
7	Closure Activities	Detailed description of any closure activities and schedule(s)	Describes the remaining closure information/activities related to disposition phase
8	Postclosure Plan	Postclosure activities will be addressed to the extent known	Detailed Postclosure plan if decision is made to leave waste in place
9	References	Includes references used in transition phase of the preclosure work plan	Includes all remaining references

 $<sup>\</sup>star$  Requirements of a RCRA closure plan are specified in 40 CFR 264 and Chapter 173-303 WAC, and are only briefly summarized here

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All disposition phase actions will be performed in accordance with federal and state hazardous waste law, and the EM-40 Guidance Document. Disposition end state criteria will require lead regulatory agency approval if DOE proposes to leave hazardous substances in place at the facility.

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# 9.0 DOCUMENTATION AND RECORDS

This section categorizes the documents that are described in this action plan, and describes the processes for their review and comment and for their revision if required. In addition, this section identifies the distribution requirements for documents and the requirement for an administrative record.

## 9.1 CATEGORIZATION OF DOCUMENTS

For purpose of the action plan, all documents will be categorized as either primary or secondary documents. Primary documents are those which represent the final documentation of key data and reflect decisions on how to proceed. Table 9-1 provides a listing of primary documents. Secondary documents are those which represent an interim step in a decision-making process, or are issued for information only and do not reflect key decisions. Table 9-2 provides a listing of secondary documents. Note that only primary documents are subjected to the dispute resolution process in accordance with the Agreement.

## 9.2 DOCUMENT REVIEW AND COMMENT PROCESS

**9.2.1 Primary Documents** (with exception of Part B Permit Applications and Closure/Postclosure plans)

Figure 9-1 provides the process flow for reviewing and commenting on primary documents. The flowchart reflects the multiple paths that a primary document may take depending on the type and extent of comments received. The time periods for specific actions are as noted on Figure 9-1. The process shown in Figure 9-1 does not preclude either the EPA or Ecology (whichever has authority regarding the primary document) from taking enforcement action at any point in the process for failure to perform. Comments may concern all aspects of the document (including completeness) and should include, but are not limited to, technical evaluation of any aspect of the document, and consistency with RCRA, CERCLA, the NCP, and any applicable regulations, pertinent guidance or written policy. Comments by the lead regulatory agency shall be provided with adequate specificity so that the DOE can make necessary changes to the document. Comments shall refer to any pertinent sources of authority or references upon which the comments are based and, upon request of the DOE, the commenting agency shall provide a copy of the cited authority or reference. The lead regulatory agency may extend the comment period for a specified period by written notice to the DOE prior to the end of the initial comment period.

Representatives of the DOE shall make themselves readily available to the lead regulatory agency during the comment period for the purposes of informally responding to questions and comments. Oral comments made during these discussions are generally not the subject of a written response by the DOE.

Upon receiving written comments from the lead regulatory agency, the DOE will update the document and/or respond to the comments (for closure plans, comments will be provided in the form of an NOD). The response will address all written comments and will include a schedule for obtaining additional information if required. The DOE may request an extension for a specified period for responding to the comments by providing a written request to the lead regulatory agency.

# Table 9-1. Primary Documents.

Remedial investigation/feasibility study (RI/FS) work plan

Remedial investigation (RI) Phase II report

Feasibility study (FS) Phases I and II report

FS Phase III report

Preclosure Work Plan

Proposed plan

Remedial design (RD) report

Remedial action (RA) work plan

Operation and maintenance (O&M) plan

Closure plan

Part B permit application (for operation and/or postclosure)

RCRA facility assessment (RFA) report

RCRA facility investigation/corrective measures study (RFI/CMS) work plan

RCRA facility investigation (RFI) report (final)

Corrective measures study (CMS) report (preliminary and final)

Corrective measures implementation (CMI) work plan

Corrective measures design (CMD) report

Interim response action (IRA) proposal

Interim measure (IM) proposal

Other work plans (as specified in Section 11.5)

Other documents as specified elsewhere in the Agreement

# . Table 9-2. Secondary Documents.

Hanford Operable Units Report (Currently titled "Preliminary Operable Units Designation Project")

RI Phase I report

RFI report (preliminary)

Hanford Site waste management units report

Sampling and data results

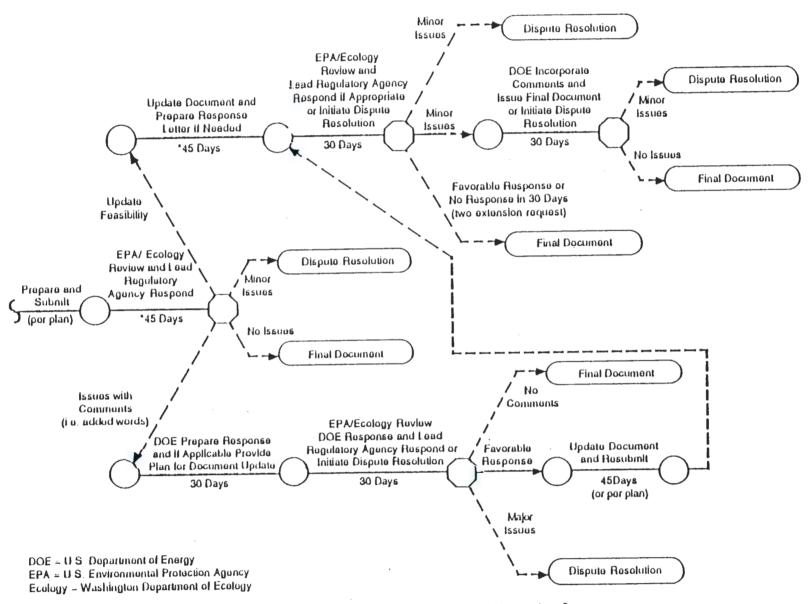
Treatability investigation work plan\*

Treatability investigation evaluation report

Supporting studies and analyses

Other related documents, plans, and reports not considered as primary

\*Per Section 7.3.6, selected treatability investigation work plans can be established as primary documents by the lead regulatory agency.



\*With exception of 60 days for RI/FS work plans and RFI/CMS work plans

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Figure 9-1. Review and Comment on Primary Documents. (See Figure 9-2 for Part B Permit Application and Closure/L closure Plan Review)

Upon receiving responses to the comments on a primary document, the lead regulatory agency will evaluate the responses. In the event that the responses are inadequate, the matter will enter the dispute resolution process as set forth in the Agreement. However, dispute resolution related to NODs cannot be initiated until after two NODs have been issued by the lead regulatory agency, unless otherwise agreed to by the DOE and the lead regulatory agency. It is anticipated that the majority of the disputes will be resolved during the informal dispute resolution period. Within 21 days of completion of the dispute resolution, or within 30 days of receipt of the lead regulatory agency evaluation of the responses if there is no dispute, the DOE will incorporate the resolved comments into the document. The DOE may extend the period for revising the document by obtaining written approval of the lead regulatory agency.

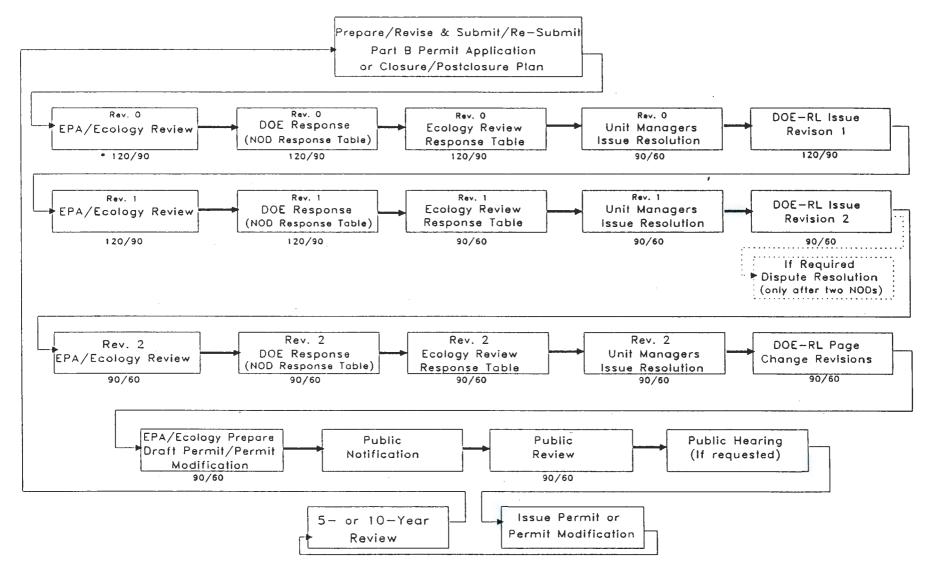
Upon receiving an updated document, the lead regulatory agency will determine if the document is complete. If major issues still exist, the dispute resolution process can be initiated. If the document is complete, or only minor modifications are necessary, the lead regulatory agency will so notify the DOE. If the lead regulatory agency does not respond and has not notified DOE of the need for an extension, the document becomes final at the end of the 30-day period.

# 9.2.2 Part B Permit Applications and Closure/Postclosure Plans (Operations and Postclosure)

The process for review of Part B Permit Applications and Closure/Postclosure Plans will be different than for other primary documents due to the size and complex nature of these documents. In addition, Part B Permit Applications do not receive final "approval" from the regulatory agencies. These documents, when complete, are used to form permit conditions. Portions of the applications will be incorporated into the permit along with permit conditions.

Figure 9-2 shows the process for review of Part B Permit Applications and Closure/Postclosure Plans. Upon receiving these documents from the DOE, the lead regulatory agency will provide comments as outlined in Figure 9-2. It is understood by the parties that in many cases the lead regulatory agency will extend the comment period for a specified period of time to accommodate the complexity and size of the document.

If the Part B Permit Application or Closure/Postclosure Plan is determined to be incomplete, comments will be transmitted by the lead regulatory agency in the form of an NOD. Upon receiving an NOD, the DOE will update the document as necessary by following the review/response process outlined in Figure 9-2. With concurrence of the lead regulatory agency, the update may be in the form of either supplemental information to, or a revised portion of, the previously submitted Part B Permit Application or Closure/Postclosure Plan. If the DOE is unable to comply with this timeline, it may request an extension within 30 days of receipt of the NOD. This request will include specific justification for granting an extension, a detailed description of actions to be taken, and the proposed date for resubmittal of the application.



DOE = U.S. Department of Energy

Ecology = State of Washington Department of Ecology

EPA = U.S. Environmental Protection Agency

NOD = Notice of Deficiency

 Permit or Closure/Postclosure Days for Completion

Figure 9-2. Part B Permit Application and Closure/Postclosure Plan Process Flowchart.

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Dispute resolution for NODs cannot be initiated until two NODs have been issued by the lead regulatory agency, unless agreed to by the lead regulatory agency and DOE. Once an application or closure plan is determined by the lead regulatory agency to be complete, the agency will begin drafting the permitting document. The permitting actions are also shown in Figure 9-2. The process for development and maintenance of the Hanford Site permit is discussed in Section 6.2

In addition to standard public notification procedures, the public will be informed about proposed permit and closure actions in the "Hanford Newsletter" and at quarterly public meetings. However, it is anticipated that in many cases, comments from the public will result in a public hearing on the draft document. All comments on the draft document, including those received during the public hearing will be addressed in a response summary and incorporated in accordance with 173-303-840(7) and (9) WAC. Public hearing opportunities are further discussed in Section 10.7.

# 9.2.3 Secondary Documents

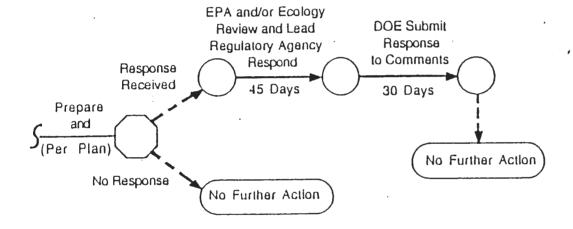
Figure 9-3 provides the process flow for reviewing and commenting on secondary documents. As shown, the lead regulatory agency has the option to provide comments or take no action. If comments are provided by the lead regulatory agency, then the DOE will respond in writing. The same criteria for review presented in Section 9.2.1 for primary documents will be used for secondary documents. Secondary documents are not subject to dispute resolution.

# 9.3 DOCUMENT REVISIONS

Following finalization of a document, the lead regulatory agency, or the DOE may seek to modify the document. Such modifications may require additional field work, pilot studies, computer modeling, or other supporting technical work. This normally results from a determination, based on new information (i.e., information that became available or conditions that became known after the report was finalized), that the requested modification is necessary. The requesting party may seek such a modification by submitting a concise written request to the appropriate project manager(s).

In the event that a consensus on the need for a modification is not reached by the project managers, either the DOE or the lead regulatory agency may invoke dispute resolution, in accordance with the Agreement, to determine if such modification shall be made. Modification of a report shall be required only upon a showing that the requested modification could be of significant assistance in evaluating impacts on the public health or the environment, in evaluating the selection of remedial alternatives, or in protecting human health and the environment.

Nothing in this section shall alter the lead regulatory agency's ability to request the performance of additional work in accordance with the Agreement. If the additional work results in a modification to a final document, the review and comment process will be the same as for the original document. Minor changes to approved plans which do not qualify as minor field changes under Section 12.4 can be made through use of a change notice. Such plans include RI/FS work plans, remedial action work plans, RFI/CMS work plans, CMI work plans, and other work plans as described in Section 11.5. (Modifications to permits and closure plans will be made in accordance with



DOE = U.S. Department of Energy

Ecology = State of Washington Department of Ecology

EPA = U.S. Environmental Protection Agency

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Figure 9-3. Review and Comment on Secondary Documents.

applicable procedures specified in 173-303 WAC and 40 CFR 270.41). The change notice will not be used to modify schedules contained within these supporting plans. Such schedule changes will be made in accordance with Section 12.0, Changes to the Agreement.

Minor changes to approved plans include specific additions, deletions, or modifications to its scope and/or requirements which do not affect the overall intent of the plan or its schedule. The lead regulatory agency will evaluate the need to revise the plan. If the revision is determined to be necessary, the lead regulatory agency will decide whether it can be accomplished through use of the change notice, or if a full revision to the plan in accordance with this section is required.

The change notice will be prepared by the appropriate DOE project manager and approved by the assigned project manager from the lead regulatory agency. The approved change notice will be distributed as part of the next issuance of the applicable project managers' meeting minutes. The change notice will thereby become part of the Administrative Record. The change notice form shall, as a minimum, include the following:

- Number and title of document affected
- Date document last issued
- · Date of this change notice
- Change notice number
- Description of change
- Justification and impact of change (to include affect on completed or ongoing activities)
- Signature blocks for the DOE and lead regulatory agency project managers

## 9.4 ADMINISTRATIVE RECORD

The administrative record serves basically the same purpose in the CERCLA, RCRA, and State dangerous waste programs. The administrative record is the body of documents and information that is considered or relied upon in order to arrive at a final decision for remedial action or hazardous waste management.

The requirements governing the administrative record for a CERCLA response action are found in Section 113(k) of the CERCLA. Executive Order 12580 and CERCLA guidance documents provide that the administrative record is to be maintained by the regulated Federal facility (i.e., the DOE). The RCRA requirements pertaining to the record are found in 40 CFR 124.9 and 124.18. The State dangerous waste program requirements for the record are found in 173-303-840 WAC.

An administrative record will be established for each operable unit and TSD group and will contain all of the documents containing information considered in arriving at a record of decision or permit. When the

investigation process begins at each operable unit or when a permit action for a TSD unit (or group of units) is initiated, the administrative record file will be available to the public for review during normal business hours at the following location:

 Westinghouse Hanford Company Environmental Data Management Center 2440 Stevens Center Room 1101 Mail Stop: H6-08 Richland, Washington 99352

Two additional copies of the file will also be available to the public, during normal business hours, located as follows:

- EPA Region 10 Superfund Administrative Record Center 1200 Sixth Avenue Park Place Building Mail Stop: HW-113 Seattle, Washington 98101
- Washington State Department of Ecology 300 Desmond Drive P.O. Box 47600 Lacey, Washington 98503

The DOE will compile and maintain the administrative record file at Richland, Washington, and provide copies to the EPA and Ecology for their respective files. At the time when the decisional document is signed, all documents forming the basis for selection of the final action(s) must have been placed in the administrative record file. Microfilm copies will be regularly provided to the EPA and Ecology for use in their files. This will include microfilm for all documents included since the last set of microfilm was provided. Microfilm readers will be made available for use at these locations.

A microfilm copy and one hard copy of the administrative records will be maintained in the Richland administrative record file. After one year following the CERCLA record of decision or RCRA permit determination, the hard copies of administrative record documents issued up to those decision points may be removed from the administrative record file. The microfilm copies will be kept on file for a minimum of 10 years. The final decision documentation (i.e., CERCLA proposed plan and record of decision, and RCRA permit) will be maintained in hard copy through completion of all remedial actions or the term of the permit. Current versions of all general documents (e.g., guidance and applicable procedures) will be maintained in hard copy throughout the RI/FS process or through the term of the permit.

Certain types of documents will be included in the administrative record in all cases when considered applicable to one or more operable units or TSD groupings. These documents are shown in Table 9-3.

# Table 9-3. Administrative Record Documents. (sheet 1 of 2)

# Factual Information/Data (CERCLA)

Remedial investigation/feasibility study work plan Remedial investigation Phase I report Feasibility study Phase I and II report Feasibility study Phase III report Proposed plan Abatement proposal Interim response action proposal Documentation of preliminary assessment/site investigation Treatability study work plan and characterization plan ATSDR health assessment Preliminary natural resource survey (by natural resource trustee) Procedures as specified in work plans Supplemental work plan Health assessment Work plan change notice Sample data results

# Factual Information/Data (RCRA)

Closure Plan
Permit application (Part A and Part B)
Draft permit (or permit modification) or notice of intent to deny
Statement of basis or fact sheet, including all resources to documentation
RCRA facility assessment report
RCRA facility investigation/corrective measures study work plan
RCRA facility investigation report (preliminary and final)
Corrective measures study report (preliminary and final)
Interim measure proposals
Procedures as specified in work plans
Work plan change notice
Sample data results

# Policy and Guidance

Memoranda on policy decision Guidance documents Supporting technical literature

## Decision Documents

Record of Decision
Responsiveness summary
Letters of approval
Action memoranda
Waiver requests and regulatory agency responses
Final determination pursuant to dispute resolution

# Table 9-3. Administrative Record Documents. (sheet 2 of 2)

# Enforcement Documents

Hanford Federal Facility Agreement and Consent Order including Action Plan Administrative orders Consent decrees Affidavits

# Tribal Participation

Correspondence to or from the Tribes Tribal comments Responses to Tribal comments

# Public Participation

Community relations plan
Correspondence to or from the public
Public notices
Public comments
Public meeting minutes
Public hearing transcripts
Responses to public comments
Fact sheets (public information bulletins)

For those which are designated as primary documents (see Table 9-1) the administrative record will include:

- All drafts submitted to the regulatory agencies for review and/or approval
- Any documents submitted by the non lead regulatory agency to the lead regulatory agency for inclusion in the Administrative Record
- Written comments from the lead regulatory agency to DOE (to include Notice of Deficiency on a Permit Application)
- DOE written responses to comments received from the lead regulatory agency
- Final document and any subsequent revisions
- Drafts which are submitted for public comment.
- For public comment documents, the public comments and lead regulatory agency responses (if no comments are received, a letter from the lead regulatory agency shall be included documenting that fact).

For those which are designated as secondary documents (see Table 9-2), the administrative record will include:

- Final document and any subsequent revisions
- Any documents submitted by the non lead regulatory agency to the lead regulatory agency for inclusion in the Administrative Record
- Written comments from the lead regulatory agency to DOE, if provided
- DOE written responses to comments received from the lead regulatory agency.

Drafts of documents which are undergoing internal review within any party will not be included in the administrative record.

In addition to those documents listed in Table 9-3, the project managers for each party will determine which additional documents should be included in the administrative record. This may include:

- Validated sampling and analysis results
- Supporting technical studies and analyses
- Inspection reports and follow up responses.

The project managers will meet at least monthly, as described in Section 4.1. During these meetings, the project managers will decide which documents are appropriate for inclusion in the record. The DOE project manager will then notify the administrative record staff of these documents to be added to the record.

For public participation documents listed on Table 9-3 the community relations staff for any party may transmit any document which they generate or receive directly to the administrative record staff, with a copy to each affected project manager.

Any documents that the regulatory agency has determined to be subject to an applicable privilege, and that are part of the administrative record, shall be maintained exclusively in confidential administrative record files of the appropriate parties until such time as enforcement action has been taken or the privilege has been waived.

The DOE will maintain an index of all documents entered into the administrative record. A current copy of the index will be distributed at least quarterly to each administrative record file and each public information repository, and will be available for inspection by any of the parties.

## 9.5 DISTRIBUTION OF DOCUMENTS AND CORRESPONDENCE

Documents and correspondence shall be sent to affected project managers, and the administrative record files as appropriate. Final primary and secondary documents and draft primary documents are sent to the affected project managers from DOE and the lead regulatory agency and the administrative record files, as appropriate.

Note: Documents distributed to the public information repositories are specified in the Community Relations Plan.

# 9.6 DATA ACCESS AND DELIVERY REQUIREMENTS

## 9.6.1 Data Reporting Requirements

The project managers will provide a list of the nonlaboratory data collected at each operable unit, and TSD group/unit on behalf of their respective parties at the monthly unit managers meetings. This will allow each party to determine its data needs and to establish the format, quality, and timing for submitting the data.

# 9.6.2 Agreement Data

Ecology and EPA shall be granted access to all data that is relevant to work performed, or to be performed, under the Agreement. Access to Agreement related databases will be documented in the Agreement Appendix F document "Agreement Databases, Access Mechanisms, and Procedures" (includes all databases and the method of accessing each database). This document will also describe method(s) for regulatory access to DOE communications networks and system configurations to meet electronic transfer of data.

## 9.6.3 Validation

Data validation shall be performed in accordance with approved sampling and analysis plans and quality assurance project plans (QUAPjPs). Laboratory analytical data validation procedure shall incorporate Data Validation Guidelines for Contract Laboratory Program Organic Analyses and Data Validation Guidelines for Contract Laboratory Program Inorganic Analyses. The DOE shall make available to EPA and Ecology validated and unvalidated

laboratory analytical data. Any document produced by any of the three parties which contains unvalidated or otherwise caveated data shall be marked as such.

The lead regulatory agency shall be notified of the availability of laboratory analytical data via electronic mail, facsimile transmission, or other means as agreed by the parties involved. Notification shall occur within one week of data entry and shall include the following information:

- date(s) of collection
- unit(s) where data collected
- type of data, e.g., ground water
- location of where data is stored, e.g., database
- unique identifier given to each piece of data, e.g., sample ID.

# 9.6.4 Non-Electronic Data Reporting

For data not available in electronic format, DOE shall meet the data reporting requirements by providing a summary list of new data at the project managers meetings, or as otherwise requested by the lead regulatory agency. This list will include, at a minimum, the information described in the preceding paragraph addressing notification. The lead regulatory agency shall determine on a case-by-case basis if data warrants a more detailed presentation or analysis. This reporting method shall also be used for field screening data. Field screening data shall be accompanied by maps or sketches with sufficient detail to determine where the data was obtained.

The information shall be submitted to the requesting party within ten days of receipt of the lead regulatory agency's written request, or as otherwise agreed to by the parties involved. In addition, other reporting requirements may be specifically required by the RCRA permit, RCRA closure plans or work plans.

# 9.6.5 Electronic Data Access Requirements

EPA and Ecology shall have direct read, retrieve, and transfer access to all relevant electronic data and databases. All validated data will be entered into the selected database in accordance with the Data Delivery Schedules in Section 9.6.6. Unvalidated data will be available within 7 days after receipt from the laboratories. Electronic access to Hanford data will be provided to EPA, Ecology and their respective contractor staff when:

- The computer network infrastructure is available to support user access (for systems that cannot support direct access data shall be provided through redundant systems or through copies of data stored in other systems), and
- The database system is accessible and utilized by Hanford personnel doing Agreement related work.

# 9.6.6 Data Delivery Schedules

The level of quality assurance for each characterization sample shall meet the requirements of Agreement Article XXXI (Quality Assurance) and shall depend on the specified Data Quality Objectives (DQO) as stated in the specific sampling and analysis plans and quality assurance project plans

(QAPjPs). Laboratory analysis and quality assurance documentation, including validation, and transmittal to the regulators, shall be limited to the following schedule:

- Transuranic and hot cell samples 136 days annual average, but not to exceed 176 days
- Single-shell tank samples 216 days
- Low-level and mixed waste (up to 10 mr/hour) samples 111 days annual average, but not to exceed 126 days
- Nonradioactive waste samples 86 days.

All schedules in this section are effective beginning with the date of individual sampling activities. For unique circumstances, a schedule other than that specified in this section can be agreed to by DOE and the lead regulatory agency. The DOE will integrate all of the data discussed in this section into the appropriate databases and reports.

# 9.6.7 Other Data Reporting Requirements

The Tri-Party Agreement Strategic Data Management Plan (reference M-35-02) will identify what types of information the DOE will index and a schedule to accomplish the indexing. The indexes will be available to all parties. Depending on the information, the regulators may request the information either electronically and/or by hardcopy. The hardcopy information shall be provided by DOE within 10 days after receipt of written request.

## 9.6.8 EPA and Ecology Data

Analytical data that is developed by EPA and/or Ecology and is of value to the three parties will be made available in the appropriate media to the three parties. The regulator(s) developing the analytical data shall provide the data in a format suitable for data storage and retrieval. Other data or information requests will be reviewed and handled on a 'case-by-case' basis directly by the parties involved.

# 9.6.9 Data Management Agreements

The Data Management project manager meeting will provide the forum for addressing data management needs and issues. Meetings will be held with EPA and Ecology at a frequency agreed to by the parties.

# 10.0 COMMUNITY RELATIONS/PUBLIC INVOLVEMENT

## 10.1 INTRODUCTION

This section describes, in general, the way in which the public will be involved with the implementation of this action plan. The CERCLA, as amended, requires that a community relations plan (CRP) be approved by the EPA prior to initiation of field work related to an RI/FS. The parties have agreed that the CRP is also the proper mechanism to address the public involvement process for all of the RCRA activity to be conducted pursuant to this action plan. In this way, a single document will specify how the public will be involved in these processes.

A CRP is the overall plan for community relations and public involvement. The following sections highlight key elements of the CRP.

#### 10.2 PUBLIC INFORMATION REPOSITORIES

Information will be readily available to the public to ensure meaningful participation. One mechanism for accomplishing this goal is the establishment of public information repositories at major population centers. The locations of the repositories are as follows:

- University of Washington Suzzalo Library Mailstop FM-25 - Government Publications Seattle, Washington 98915 (206) 543-4664
- DOE-RL Public Reading Room Washington State University/Tri-Cities 100 Sprout Road Room 130 Richland, Washington 99352 (509) 376-8583
- Portland State University Branford Price and Millar Library 934 SW Harrison P.O. Box 1151 Portland, Oregon 97207 (503) 725-3690
- Gonzaga University
   Foley Center /
   E. 502 Boone
   Spokane, Washington 99258
   (509) 328-4220, extension 3844

All documents (with exception of drafts) listed on Table 1 of the CRP will be sent to the repositories. In addition, copies of drafts when submitted for public comment will be placed in the repositories. Any additional information or documents will be placed in the repositories as deemed necessary by the assigned executive managers. In addition to review of documents at the repositories, the public may also review the administrative record files during normal working hours (see Section 9.4 for discussion and location of administrative records).

## 10.3 MAILING LISTS AND NEWSLETTER

A single Hanford Site mailing list will be maintained by the DOE for use by all three agencies to ensure consistency. The EPA, Ecology, or the DOE will periodically distribute information in the form of a direct mailing to those persons on the Hanford Site mailing list. Any person may be placed on the Hanford Site mailing list by contacting any of the community relations contacts shown in Appendix E.

A direct mailing will usually be in the form of a public information newsletter. The newsletter is a summary of the status of completed, ongoing, or upcoming activities. In some instances, this newsletter may be used in conjunction with a public notice and/or advertisement (newspaper or radio) to announce an event such as a public meeting, a public hearing, or a formal comment period on a certain document.

#### 10.4 PRESS RELEASES

Any party issuing a formal press release to the media regarding any of the work required by this Agreement shall, whenever practicable, advise the other parties of such press release and the contents thereof, at least 48 hours before the issuance of such a press release.

## 10.5 PUBLIC MEETINGS

## 10.5.1 Quarterly Public Information Meetings

The EPA and Ecology, with the assistance of the DOE when requested, will conduct public information meetings at least quarterly. The quarterly meetings will cover significant issues pertaining to CPP units, RPP units, Federal RCRA/State dangerous waste permitting activities, and closure activities that took place during the previous three months. The quarterly meetings will also provide a forum for discussing with the public anticipated events scheduled during the next quarter.

# 10.5.2 Other Public Meetings

Additional public meetings on either CERCLA or RCRA matters will be scheduled on an as-needed basis, as determined by the EPA or Ecology. Situations involving complex issues or a high level of public interest will be reasons to schedule separate public meetings.

At least one public meeting will be held during the public comment period for each FS Phase III report/proposed plan. At least one public meeting for each CMS report will be held in conjunction with a public meeting for the relevant draft permit (or permit modification) package. Such meetings will be

scheduled approximately halfway through the public comment period. All public comments received on these documents, along with the lead regulatory agency's response to comments, will be placed in the administrative record and will be sent to the public information repositories.

# 10.5.3 Public Notification, Location, and Records

The DOE, at the request of the EPA and/or Ecology, will arrange for all public meetings by means of a public notice in a newspaper of general circulation and a major radio station in the area where the meeting is to be held. The DOE will also distribute a direct mail notice to all persons on the Hanford Site mailing list. All such notices shall be made 2 to 3 weeks prior to the date of the public meeting. The quarterly public information meetings will be scheduled, to the extent practicable, to coincide with public comment periods or other significant events.

The location of any public meeting will be decided in each case by the EPA and/or Ecology. In some cases, the agencies may decide to hold an additional public meeting on a subsequent day at another location.

Upon request by the EPA or Ecology, the DOE will provide an individual to accurately record the events and dialogue at each public meeting. This individual will provide a written meeting summary of the public meeting for review to the requesting agency and the DOE project managers, and the community relations contacts within 14 days following the meeting. The meeting summaries will then be distributed to each of the public information repositories. Any individual may obtain a copy of the meeting summaries by submitting a request, in writing, to any of the community relations contacts listed in Appendix E.

## 10.6 PUBLIC COMMENT OPPORTUNITIES

The EPA and/or Ecology will make the documents as listed in this section available for public comment. These documents will be placed in the public information repositories. They may also be reviewed at the EPA Region 10 office in Richland, Washington; the Ecology office in Lacey, Washington; or the DOE office in Richland, Washington, by contacting any of the community relations contacts listed in Appendix E.

Copies of all public comments received and the agencies' responses to comments will become part of the administrative record and will be sent to the public information repositories. Additionally, copies of all public comments and agency responses will be made available to any person upon written request to any of the community relations contacts listed in Appendix E.

The public notice for availability of these documents for comment will be published in a major newspaper of general circulation and announced on a major radio station in the areas of significant public interest and through the direct mailing list (see Section 10.3).

The documents to be made available for public comment are as follows.

- <u>Significant Changes to the Agreement</u>. One of the more significant opportunities for public comments pertains to changes made to the Agreement or its Action Plan. Changes to the Agreement or its Action Plan which are significant, as defined by the CRP, shall be made available for public comment for a period of 45 days.
- RI/FS Work Plan (CERCLA) or RFI/CMS Work Plan (RCRA). Either an RI/FS work plan or an RFI/CMS work plan will be prepared for each operable unit. Prior to lead regulatory agency approval of these work plans, they will be made available for public comment for a period of 30 days. On a case-by-case basis, the project managers may agree to extend the comment period to 45 days. There is no statutory or regulatory requirement for such public comment, but the parties believe that the earliest possible public involvement will result in improved communication throughout the investigation process. The public notice published in the newspaper announcing the availability of work plans shall also indicate the location and availability of the Administrative Record file.
- Feasibility Study Phase III Report/Proposed Plan or Corrective Measure Study Report. Either an FS Phase III report/proposed plan (CERCLA) or a CMS report (RCRA) will be prepared for each operable unit. When the FS Phase III report and the proposed plan for remedy are finalized, the lead regulatory agency will issue a public notice of opportunity to comment on the documents. If the operable unit is being managed under the RPP authority, rather than CERCLA, the RCRA CMS report will be made available for comment as part of the draft permit modification package. The comment period will be 45 days. There are currently no specific requirements for public comment on the CMS report, but the parties consider this report to be the functional equivalent of the FS Phase III report and the proposed plan and, therefore, will make the CMS report available for public comment in the same manner.
- <u>Draft Joint Dangerous Waste/Resource Conservation and Recovery Act Permits (for Treatment, Storage, and Disposal Units)</u>. The permit and associated modifications (see Section 6.2) for either new or continued operation of TSD groups/units or for postclosure care of TSD units will be made available for public comment in accordance with 173-303-840 WAC and 40 CFR 124.10. The comment period will be 45 days.
- Closure Plans (for Interim Status Treatment, Storage, and Disposal Units). All closure plans for TSD units (see Section 6.3) that will be closed prior to or instead of issuance of a permit will be made available for public comment, in accordance with 173-303-840 WAC. The comment period will be 45 days.
- Interim Response Actions and Interim Measures. In any case where the lead regulatory agency believes that a release from a unit meets the criteria for an IRA or IM, as described in Section 7.2.4, it shall direct the DOE to submit either an IRA proposal or an IM proposal for remedy selection. Prior to approval, the lead

regulatory agency will make the proposed remedy selection available for public comment for a period of 15 or 30 days.

- RCRA Section 3008(h) Orders and RCRA 7003 Orders. The EPA will propose the selected corrective action remedy to be performed under either RCRA 3008(h) or RCRA 7003 and make it available for public comment prior to final approval. The comment period for 3008(h) orders will be 30 days and the comment period for 7003 orders will be 15 days.
- <u>Community Relations Plan</u>. Any major revisions to the CRP will be subject to public comment for a period of 30 days. The EPA and Ecology will determine whether revisions are major and subject to public comment.

# 10.7 PUBLIC HEARING OPPORTUNITIES

The draft permit and all modifications are subject to public hearings upon request. A public hearing must be held if any person requests, in writing, that one be held. The request must state the nature of the issues to be raised at the hearing and must include a notice of opposition to the draft permit, in accordance with 173-303-840 WAC and 40 CFR 124.11 and 124.12.

The DOE will, upon request, assist the EPA and Ecology in the same manner as with public meetings, as previously described. The public notice for any public hearing will be made by the DOE at least 30 days prior to the date of the hearing. Transcripts of the public hearing will be distributed in the same manner as those for the public meetings. Any individual may obtain a copy of the transcript by submitting a request, in writing, to any of the community relations contacts listed in Appendix E.

A public hearing will be held in the locality from which the majority of requests for the hearing was generated. In some cases, a public hearing may be held at more than one location, at the discretion of the EPA and Ecology.

### 10.8 TECHNICAL ASSISTANCE GRANTS

The provision for Federal technical assistance grants (TAG) is found in Section 117(e) of CERCLA. The EPA will be responsible for administering any Federal TAG that is applied for in conjunction with the Hanford Site. The TAG is a mechanism by which the EPA provides reimbursement to the public for a level of effort spent on CERCLA document review. In this way, the public can be directly involved in the review process of various CERCLA documents in more depth than otherwise might be possible. Information on TAGs can be obtained by contacting:

Technical Assistance Grant Coordinator U.S. Environmental Protection Agency 1200 Sixth Avenue, Mail Stop: HW-113 Seattle, Washington 98101 (206) 442-0603

## 10.9 WASHINGTON STATE PUBLIC PARTICIPATION GRANTS

The Model Toxics Control Act, Chapter 70.105D RCW, and 173-321 WAC, provide for public participation grants to persons, and not-for-profit public interest organizations. The primary purpose of these grants is facilitating the active participation of persons and organizations in the investigation and remedying of releases or threatened releases of a hazardous substance. Additional information on this program may be obtained by contacting:

Public Participation Grant Coordinator Solid Waste Program Washington Department of Ecology P.O. Box 47600 Olympia, Washington 98504-7600 (360) 407-6000

# 10.10 INDIAN TRIBES

The parties recognize that several Northwest Indian tribes have treaty-reserved rights to resources outside their reservation boundaries. In some instances, these resources are either located on the Hanford Reservation or could be affected by activities on the Hanford Reservation. Treaty-reserved rights give these tribes a governmental interest in waste management and environmental restoration activities at Hanford.

DOE and EPA also recognize that, as agencies of the federal government, they have a trust responsibility to American Indian Tribes to consult with the tribes and whenever possible, protect tribal resources which may be affected by agency decision-making. Moreover, DOE, EPA, and the State of Washington have adopted policies which recognize tribal sovereignty and commit to a government-to-government relationship with the tribes.

Given these responsibilities and policies, the parties recognize the unique position of the tribes and the distinction between the rights and responsibilities of the tribes and those of the public. Accordingly, the three parties will seek to facilitate tribal participation in Agreement decision-making at the government-to-government level. Among actions to be taken in this regard are:

1. To involve these Tribes in the hazardous waste cleanup and management processes at the Hanford Site, the parties will hold special briefings for all interested Tribes periodically on major issues that have arisen and/or may arise. Such briefings will include status reports of the significant projects and will be consistent with the methods used to inform and respond to questions of appointed and elected officials, and other governments, regarding ongoing CERCLA and RCRA activities. These briefings may be in writing or in person and may be conducted by either the EPA, Ecology, or the DOE, as appropriate. Notice will be provided to all Tribes in the Hanford region. These briefings and the procedures for determining which Tribes will be briefed are further described in Section 2.0 of the CRP.

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- 2. The DOE will provide copies of any of the documents that are sent to the public information repositories directly to the Tribes upon request. The procedure for determining which documents will be sent is described in Section 2.0 of the CRP. The public information repositories are further discussed in Section 10.2 and in the CRP. The specific list of documents that will be sent directly to each repository is included in the CRP. As discussed in Section 10.2, this may include copies of drafts submitted for public comment. Any comments on these documents must be received by the lead regulatory agency within the time period allowed for public comment. The length of each comment period is specified in Section 10.6, and the specific comment period for each document will be noted in the public notice for comment.
- 3. In addition to item 2 above, DOE will provide copies of key documents and other pertinent material to the tribes at the time they are provided to EPA and Ecology for review. Such documents include those identified in tables 9-1 and 9-2 of this action plan, but will also include other technical plans, studies and reports related to this Agreement. Other pertinent material includes, but is not limited to, draft change packages, Agreements In Principle between the three parties, and budget information. For large documents containing supporting technical information (e.g. laboratory data packages), DOE will only provide copies of the transmittal letter to the tribes. The document will then be provided upon request. DOE will periodically consult with the tribes to ensure that they are receiving the appropriate documents and material in accordance with this paragraph.

#### 10.11 CITIZEN SUIT PROVISIONS

Statutory provision for citizen suits under CERCLA is found in Section 310 of CERCLA, as amended. Statutory provision for citizen suits under RCRA is found in RCRA Section 7002. The application of these provisions can be found at Articles X and XXI of the Agreement.

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#### 11.0 WORK SCHEDULE AND OTHER WORK PLANS

#### 11.1 INTRODUCTION

This section describes the format and content of the work schedule, and the process for annual updates and other revisions. In addition, this section identifies those primary documents that contain other schedules that directly support the work schedule.

The work schedule is contained in Appendix D. It includes the major and interim milestones and additional target dates that support the accomplishment of the major milestones described in Section 2.0. Both major and interim milestones are considered enforceable under the Agreement. Dates specified as target dates are incorporated in the work schedule for the purpose of tracking progress toward meeting milestones, and are not enforceable. Work plans and reports will specify additional target dates and milestones. Milestones and target dates will be incorporated into the Agreement via the change process defined in Section 12.0 upon issuance of the approved work plan or report, and incorporated into the work schedule as part of the revision process. The work schedule will indicate actions required at each operable unit identified in Appendix C or TSD group identified in Appendix B. Such actions include, but are not limited to, the following:

- · Permitting activities
- Closures
- Groundwater monitoring
- Achieving interim status requirements
- Ceasing disposal of contaminated liquids to the soil column
- Investigations and characterization
- Remedial and corrective actions
- Technology improvements
- New facilities to enhance operations and eliminate long-term storage
- Land disposal restriction requirements

# 11.2 WORK SCHEDULE FORMAT AND PREPARATION

A listing of major and interim milestones, and associated target dates is provided in Appendix D.

#### 11.3 WORK SCHEDULE UPDATES

The work schedule will be updated periodically. In addition, any approved schedule changes (see Section 12.0 for formal change control system) will be incorporated at this time if not previously incorporated. Each update will be performed as agreed by the three parties.

The work schedule may also be updated for clarity to incorporate previously approved changes made in accordance with Section 12.2. Such updates do not require approval signatures and are not subject to the public comment process.

#### 11.4 WORK PLANS AND SUPPORTING SCHEDULES

Unless otherwise specified, workplans, including those workplans prepared under the Hanford Past-Practice Investigation Strategy, shall be prepared, reviewed and approved as primary documents. At the time work plans are submitted for approval they shall describe in detail the work to be done and include the performance standards to be met. They shall also include an implementation schedule with start and completion dates. The work plan schedule shall identify completion dates for major tasks and deliverables as interim milestones. Milestones shall be set in a manner which fits the requirements of the work to be accomplished, with at least one milestone every twelve months, unless otherwise agreed to by the project managers. A change package shall be submitted with the work plan which identifies the interim milestones.

Schedules may be constructed in a manner that allows tasks or deliverables which require or follow regulatory agency review and approval to be due a fixed number of days after approval, rather than on a fixed date. The project managers will rely primarily on the supporting schedules for tracking progress.

Required work plans include:

- RI/FS work plan
- Remedial action work plan
- Closure plan
- RFI/CMS work plan
- CMI plan
- LFI work plan
- ERA work plans/EECA's.

These ERA work plans/EECA's are not to be prepared, reviewed and approved as primary documents, but are subject to approval in accordance with Section 7.2.4 of the Action Plan. Additional detailed schedules, beyond those contained in the above plans, may be needed as agreed to by the assigned project managers to provide more definitive schedules to track progress. These may be part of other plans or may be stand-alone schedules.

#### 11.5 OTHER WORK PLANS

In addition to the work plans previously described, other work plans may be developed for special situations at the request of the lead regulatory agency. These work plans will be considered primary documents as discussed in Section 9.1, and are subject to all work plan requirements, including those identified above in Section 11.4.

#### 11.6 SUPPORTING TECHNICAL PLANS AND PROCEDURES

In addition to the requirements as specified in this Agreement, supporting technical plans and procedures may be developed by DOE. They will be reviewed for approval by EPA and Ecology as primary documents or reviewed as secondary documents as determined by EPA and Ecology. In the event that such supporting technical plans and procedures apply only to a specific operable unit, TSD group/unit or milestone the lead regulatory agency will provide the necessary review and approval. The DOE may submit such plans or procedures at any time, without request of the regulatory agencies. The EPA or Ecology may also request that specific plans or procedures be developed or modified by DOE, consistent with Article XXX of the Agreement. These technical plans and procedures shall pertain to specific compliance and cleanup activities conducted pursuant to this Agreement and shall provide a detailed description of how certain requirements will be implemented at the Hanford Site. DOE shall comply with the most recent approved versions of these technical plans and procedures and those secondary documents which are in effect.

Appendix F contains a listing of current supporting technical plans and procedures and their respective status. Changes to Appendix F will be accomplished in accordance with Section 12.0. Appendix F will be updated annually in conjunction with the annual update to the Work Schedule.

#### 11.7 TANK WASTE REMEDIATION SYSTEM CRITICAL PATH PROCESS

Tank waste remediation milestones will be established using a critical path process as described in this section. The tank waste remediation program will be established and managed as an integrated system and shall include all activities associated with waste characterization, retrieval/closure, tank stabilization, pretreatment, treatment of high-level and low-level tank waste, acquisition of new tanks, and the multi-purpose storage complex. The parties will develop detailed operating procedures and implement the critical path milestone system on a trial basis, in April 1994, with full implementation by September 30, 1994.

- A. For the purposes of critical path analysis, negotiated dates for completion of single-shell tank waste retrieval, the final closure of single-shell tank farms, and completion of all high-level and low-level tank waste treatment shall be designated as program endpoints and shall be major milestones.
- B. Activities and associated schedules for this program shall be included in the Site Management System (SMS). All activities, milestones, and target dates necessary for tracking the program will be negotiated for inclusion in this Agreement. Activity definition will be based generally on SMS Level O schedules, but may in some

instances include SMS Level 1. Based on a critical path analysis, any event appearing on the critical path shall be designated as either a major or an interim milestone. Any event not on the critical path shall be designated a target date.

- C. On a semi-annual basis, the integrated schedule shall be updated by the project managers or their designees and the critical path shall be re-evaluated. Updates shall be based on current Site Management System (SMS) information. Additional events falling on the critical path shall be designated as interim milestones. The integrated management schedule shall identify schedule float for each task. Schedule float shall be defined as the amount of time available before an activity becomes a critical path activity. Any activity found to be no longer on the critical path shall revert to target date status.
- D. The Department of Energy shall have the ability to reschedule any activity associated with a target date as necessary to efficiently manage the project, provided such movement shall not adversely affect the critical path or the program endpoints. Project managers shall be advised in advance in writing of any such changes.
- E. Changes to any activity or schedule which affects the critical path, a major or interim milestone, or program endpoints must be requested in accordance with Section 12.0 of the Action Plan.
- F. Based on the information in the monthly SMS report, the Department of Energy shall take all appropriate actions to correct schedule slips in critical path activities.

#### 12.0 CHANGES TO THE AGREEMENT

#### 12.1 INTRODUCTION

This section provides the process for changing elements of the Agreement, the Action Plan and its appendices. All changes processed using this section shall be subject to the applicable requirements of Section 10.0 Community Relations/Public Involvement.

#### 12.2 AUTHORITY TO APPROVE CHANGES

The appropriate authority level for approval of a change is based on the content of the change as follows.

- <u>Class I Change</u>——A Class I change is a change to parts one through five of this Agreement or a major milestone as defined in Section 2.0. A Class I change requires the approval of the signatories or their successors as shown in Section 14.0.
- <u>Class II Change</u>—A Class II change is any change to the Action Plan or its appendices except as specified for Class I or Class III changes. A Class II change requires the approval of the DOE and affected lead regulatory agency executive managers. Changes made to lead regulatory agency lead designations only may be approved by the EPA and Ecology executive managers.
- <u>Class III Change</u>—A Class III change is a change to a target date in the work schedule (Appendix D) or a supporting schedule that does not impact an interim milestone. A Class III change requires the approval of the DOE and lead regulatory agency project managers. It is not the intent of the parties to revise target dates because work is slightly behind or ahead of schedule. Such schedule deviations will be reflected through the reporting of work schedule status. The use of the change process for revising target dates is for use by the parties to delete, add, or accelerate or defer a target date (by more than 60 days).

#### 12.3 FORMAL CHANGE CONTROL PROCESS

#### 12.3.1 Change Control Form

All changes shall be processed using the change control form included as Figure 12-1. The following describes the process in accordance with the circled numbers shown in Figure 12-1.

Obtain and enter a "change number." The DOE shall maintain a log of all changes by number and title, along with a file copy of the change. An individual will be assigned responsibility for maintaining the change file and will be responsible for assigning change numbers. The change number can be obtained any time during the change process, even after the change is approved.

Change Number	Federal Facility Agreement and Consent Order Change Control Form Do not use blue ink. Type or print using black ink.			Date 3
Originator	Phone Phone			
Class of Change [ ] I - Sig	natories	[ ] II - Executive Manager	[ ] III - Project Man	ager 4
Description/Justification	on of Change			
Impact of Change				
Affected Documents				
Approvals  DOE  EPA  Ecology		Oate Approved	Disapproved Disapproved Disapproved	10

Figure 12-1. Change Control Sheet.

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- Enter the name of the originator or the requestor.
- Enter the date the change was initiated.
- Place an "x" in the box for the appropriate class of change per the criteria identified under Section 12.2.
- 5 Enter a short title for the change, which will be used primarily as a cross-reference on the change log.
- Provide a description of the change, along with justification as to why the change should be made. Use an attached sheet of paper if additional space is required.
- (7) Explain what is impacted by this change.
- (8) List all documents that will have to be revised because of the change.
- Obtain approval signatures based on the class of change assigned. Approval via telephone is acceptable, but must be followed up with a signature as soon as possible thereafter.
- This space is available for special notes, comments, or other signatures as required.

Backup information should be attached as necessary to support the change. Once approved, the change is considered implemented. Affected documents (e.g., work schedule) need not be updated until their next scheduled update.

#### 12.3.2 Request for Extension

Any DOE request for extension shall be submitted in writing and shall specify:

- A. The timetable and deadline or schedule for which the extension is sought;
- B. The length of the extension sought;
- C. The good cause for the extension; and
- D. Any related time table and deadline or schedule that would be affected if the extension were granted.

# 12.3.3 Response to Requests for Modifications

Within 14 days of receipt of a signed change control form requesting modification of a milestone time table and deadline or other enforceable requirement, each affected Party shall respond by either approving or disapproving the request in writing. If any affected party fails to respond within the 14 day period for review, it shall be deemed to constitute disapproval of the request. If a Party disapproves a requested modification, it shall explain the basis for the disapproval in writing.

# 12.3.4 Transmittal and Responses to Requests for modification

A signed Class I change control form and/or response may be transmitted by mail or overnight express delivery to any Party's normal business location addressed to the responsible signatory with copy to the responsible project manager, return receipt requested, or by hand delivery to the responsible signatory.

A signed Class II change control form and/or response may be transmitted by mail or overnight express delivery to any Party's normal business location addressed to the responsible Executive Manager with copy to the responsible project manager, return receipt requested, or by hand delivery to the responsible executive manager.

A signed Class III change control form and/or response may be transmitted by mail or overnight express delivery to any Party's normal business location addressed to the responsible project manager, return receipt requested, or by hand delivery to the responsible project manager.

Transmittal of signed change control forms and/or responses may also be made by electronic facsimile, but only if on the day of transmittal the transmitting Party notifies the intended recipient(s) by telephone of such transmittal. The recipient's agency must acknowledge receipt by return facsimile. Documents transmitted by electronic facsimile that are illegible, or that are not received in their entirety, shall not be deemed received.

#### 12.4 MINOR FIELD CHANGES

To ensure efficient and timely completion of tasks, minor field changes can be made by the person in charge of the particular activity in the field. Minor field changes are those that have no adverse effect on the technical adequacy of the job or the work schedule. Such changes will be documented in the daily log books that are maintained in the field.

# 13.0 LIQUID EFFLUENT TREATMENT AND DISPOSAL

# 13.1 LIQUID EFFLUENT DISCHARGE RESTRICTIONS

#### 13.1.1 Introduction

This section addresses requirements for management of restrictions for discharge of liquid effluents to the soil column at Hanford. These managerial requirements are the result, in part, of EPA's and Ecology's reviews of the Liquid Effluent Study (LES) that was submitted by DOE in August 1990. The LES included information on the 33 Phase I and Phase II liquid effluent streams and was conducted outside the scope of this Agreement. However, the parties agreed that information obtained through the LES would be considered new information (see Paragraph 136 of the Agreement) and that such new information could form the basis for reevaluation of the liquid discharge milestones in the Agreement. The liquid effluent discharge milestones are covered in M-17-00.

The purpose of this section is to describe the process which will be followed for establishing additional milestones related to the operation, treatment, and disposal of all 33 Phase I and Phase II liquid effluent discharges to the soil column and to explain the general guidelines to be followed in the establishment of additional milestones. The initial requirements and restrictions contained herein address the seven streams identified by EPA as high priority, as well as five streams associated with the PUREX facility. The parties agree that such requirements and restrictions are necessary to provide near-term assurance that all reasonable steps are being taken to minimize environmental degradation. The long-term solutions are to establish stream specific milestones leading to establishment of treatment processes or ceasing discharges altogether and finally, to regulate any remaining discharges to the soil column through provisions of the State of Washington Waste Discharge Permit Program (WAC-173-216 or, if applicable, WAC-173-218).

# 13.1.2 State Waste Discharge Permits

The Parties agree that those waste water streams currently discharged to the soil column or any future waste water streams (excluding discharges that are exempt from permitting under Section 121 of CERCLA) discharged to the soil column, which affect groundwater or which have the potential to affect groundwater, shall be subject to permitting under RCW 90.48.160, WAC 173-216. or if applicable, WAC 173-218. While the administration of these provisions of state law will be conducted outside this Agreement, Ecology intends to maintain consistency with this Agreement in implementing the state water quality program at the Hanford Site. Ecology and DOE agree to negotiate a separate agreement by September 1991 or such later date as the Parties agree upon, which will provide a schedule for obtaining permits and all necessary actions leading to obtaining such permits pursuant to these provisions of state law at the Hanford Site. While DOE is agreeing to Ecology's authority to implement a permit program under RCW 90.48.160 and WAC Chapter 173-216 for liquid effluents discharged to the soil column which affect or have the potential to affect groundwater at the Hanford Site, DOE reserves any rights and defenses under state and federal law in any enforcement or permitting activity including the right to appeal such permits to the appropriate

tribunal and to raise any objection whatsoever to such permits except that DOE will not challenge Ecology's authority to administer the WAC Chapter 173-216 permit program at the Hanford Site.

# 13.1.3 Liquid Effluent Discharge Milestones and Negotiations

The Parties will also negotiate additional interim and final milestones to be included in this Agreement addressing, without limitation, waste reduction, interim and final treatment, and/or termination of the 33 Phase I and Phase II streams. These negotiations will be completed by September 1991. Negotiated milestones will be included in the 1992 Annual Update to the Work Schedule (Appendix D).

The Parties are agreeing now to the addition of certain interim milestones (M-17-11, M-17-12, and M-17-13) in Milestone M-17-00. These milestone requirements relate to interim of final remedial actions which will be taken at Operable Units affected by those discharges. The specific descriptions of these milestone requirements are set forth in Appendix D of this Agreement, Tables D-4 and D-5.

# 13.1.4 Sampling and Analysis Plans

DOE will develop a stream specific sampling and analysis plan (SAP) for the Phase I and Phase II streams which continue to discharge to the soil column as specified in Appendix D, Table D-4. These SAPs shall be subject to approval of EPA and Ecology and will include an implementation schedule. The SAPs must provide for representative sampling of wastes discharged to the soil column, accounting for significant variations in volumes and contaminant concentrations due to operational practices. The frequency of sampling will vary, depending on the consistency or trends established for each stream over time. The SAPs will consider all of the parameters known or suspected to be associated with each liquid effluent stream with consideration given to the influence of operational practice, raw water characteristics, and process knowledge in developing contaminant analysis requirements. DOE will sample and analyze each stream in accordance with the approved sampling and analysis plan. The timing for development of each SAP will be specified on the appropriate M-17-00 milestone as set forth in Appendix D, Table D-4.

# 13.1.5 Assessment of Environmental Impact of Continuing Liquid Discharges

DOE will develop a methodology for assessing the impact of all discharges (including both active and proposed) on groundwater at the disposal sites. This methodology will rely on available data, additional liquid effluent sampling, analytical results supplied under Section 13.1.4, and optimal management practices. DOE shall submit this methodology to EPA and Ecology for approval. Within 30 calendar days after notification of approval of the methodology, DOE shall submit a schedule for the completion of the assessments for each of the 33 Phase I and Phase II effluent streams which will continue beyond June 1992.

# 13.1.6 Stream Specific Requirements and Restrictions

The Parties agree that interim operating restrictions are necessary to provide near-term assurance that all reasonable steps are being taken to minimize environmental degradation while negotiations and follow on actions are pursued. The twelve high-priority streams and the interim operating restrictions to be implemented for each of those streams are identified in Appendix D, Table D-5.

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# 14.0 SIGNATURE

undersigned hereby approve this action plan for	implementation
For the United States Environmental Protection	Agency:
Chuck Clarke Regional Administrator, Region 10 U.S. Environmental Protection Agency	Date
For the United States Department of Energy:	
John Wagoner Manager, Richland Operations Office U.S. Department of Energy	Date
For the Washington State Department of Ecology	:
Many Divoland	Data
Mary Riveland Director	Date
Department of Ecology	

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# DEFINITION OF TERMS AND ACRONYMS

- Acronyms
- · Definition of Terms Used in the Action Plan
- Definition of Other Technical Terms

# Acronyms (sheet 1 of 3)

Aggregate Area Management Study Report **AAMSR** Activity Data Sheet ADS Approved Funding Plan AFP As Low As Reasonably Achievable ALARA Fitzner/Eberhardt Arid Lands Ecology Reserve ALE Aqueous Makeup Unit AMU Applicable, or Relevant and Appropriate Requirement ARAR Agency for Toxic Substances and Disease Registry **ATSDR** Best Available Technology/All Known and Reasonable Technologies BAT/AKART Basalt Waste Isolation Project BWIP Correction Action Management Unit CAMU Conceptual Design Report CDR Comprehensive Environmental Response, Compensation and CFRCLA Liability Act Code of Federal Regulations CFR Corrective Measures Design CMD Corrective Measures Implementation CMI Corrective Measures Study CMS CERCLA Past Practice CPP Community Relations Plan CRP Double-Contained Receiver Tank DCRT U.S. Department of Energy DOF U.S. Department of Energy - Headquarters DOE-HO DOE Richland Operations Office (also known as RL) DOE-RL U.S. Department of Interior DOI Data Quality Objectives D00 Dispute Resolution Committee DRC Double Shell Tank DST Decommissioning and Decontamination D&D Dangerous Waste DW Environmental Assessment EΑ Environmental Corporation of America ECA State of Washington Department of Ecology Ecology Engineering Evaluation of Alternative EEA Engineering Evaluation/Cost Analysis EE/CA Environmental Impact Statement EIS DOE Office of Environmental Management EM U.S. Environmental Protection Agency EPA Environmental Restoration ER Functional Design Criteria FDC Fast Flux Test Facility **FFTF** Focused Feasibility Study FFS Feasibility Study FS Geographic Information System (used on page G-2) GIS Gallons Per Minute **GPM** Global Positioning System GPS High-Level Waste HLW Hazardous and Solid Waste Amendments (of 1984) **HSWA** Hanford Site Waste Management Units Report **HSWMUR** Hazardous Waste Management Act HWMA Hanford Waste Vitrification Plant HWVP

#### Acronyms (sheet 2 of 3)

TIMAI Inter-Agency Management Integration Team Interim Measure IM Interim Response Actions IRA Information Records Management IRM In-situ Vitrification ISV Land Disposal Restrictions LDR Liquid Effluent Retention Facility LERF Liquid Effluent Study LES Limited Field Investigation LFI Low-Level Burial Ground LLBG LLW Low-Level Waste Liquid Waste Disposal Facility **LWDF** Milestone(s) M/S Maintenance and Storage Facility MASF Megabyte MB Maximum Contaminant Level MCL Millirem MREM Multi-Function Waste Tank Facility MWTF Neutralized Current Acid Waste NCAW National Oil and Hazardous Substances Contingency Plan NCP Neutralized Cladding Removal Waste NCRW National Environmental Policy Act NEPA National Oceanic and Atmospheric Administration NOAA Notice of Deficiency NOD National Pollutant Discharge Elimination System **NPDES** National Priorities List NPL Nuclear Regulatory Commission NRC Nonradioactive Dangerous Waste Landfill NRDWL Operation and Maintenance 0&M Office of Management and Budget OMB Operable Unit OU PA/SI Preliminary Assessment and Site Investigation Pollution Control Hearings Board PCHB Pico Curies per Liter pCi/L Plutonium Finishing Plant (Z Plant) Preliminary Natural Resource Survey PFP **PNRS** Plutonium/Uranium Extraction PUREX Quality Assurance QA Quality Assurance/Quality Control QA/QC Quality Control 00 Quality Assurance Project Plans QUAPjPs Research and Development R&D Remedial Action RA Resource Conservation and Recovery Act RCRA RCW Revised Code of Washington Remedial Design RD Remedial Design and Remedial Action RD/RA Research, Development, and Demonstration RD&D Reduction-Oxidation (Facility) REDOX

RCRA Facility Assessment RCRA Facility Investigation

RFA

RFI

# Acronyms (sheet 3 of 3)

RCRA Facility Investigation/Corrective Measures Study RFI/CMS Remedial Investigation RΙ Remedial Investigation/Feasibility Study Richland Operations Office (DOE) RI/FS RL Radioactive Mixed Waste RMW Record of Decision ROD **RPP** RCRA Past Practice Streamlined Approach for Environmental Restoration SAFER Sampling and Analysis Plan SAP Superfund Amendments and Reauthorization Act of 1986 SARA Senior Executive Committee SEC Standard Hydrogen Monitoring Systems SHMS Site Management System Single-Shell Tank SMS SST Solid Waste Management Unit SWMU Technical Assistance Grant TAG To Be Decided / Determined TBD Tank Characterization Database TCD Tank Characterization Reports **TCRs** Tank Monitor and Control System **TMACS** Tri-Party Agreement TPA Transuranic TRU Transuranic Extraction (process) TRUEX Transuranic Waste Storage and Assay Facility TRUSAF Treatment, Storage, and Disposal TSD Tank Waste Analysis Plan's TWAP Tank Waste Information Network System TWINS Tank Waste Remediation System TWRS U.S. Code U.S.C. **USDOE** United States Department of Energy United States Environmental Protection Agency **USEPA** Unreviewed Safety Questions USQ Washington Administrative Code WAC Waste Encapsulation and Storage Facility WESF Washington Guidance Level WGL Waste Identification Data System WIDS Washington Public Power Supply System WPPSS Waste Receiving and Processing WRAP Waste Management WM

# Definition of Terms Used in the Action Plan (sheet 1 of 15)

- Acceptance Criteria: A set of DOE-HQ approved criteria, as discussed in Section 14 of this document, which ensure a facility has: 1) successfully completed the facility transition phase, 2) prepared surveillance and maintenance (S&M) plan, and 3) maintained the S&M plan as a current document. As a result of meeting these conditions, the DOE Office of Environmental Restoration makes a determination of whether to accept the facility into the S&M phase (until a priority decision is made to disposition the facility).
- Administrative Record: The administrative record is the body of documents and information that is considered or relied upon in arriving at a final decision for a remedial action, interim response action (i.e. removal action), corrective measure, interim measure, RCRA permit, or approved RCRA closure plan.
- Agency (Agencies): Unless otherwise specified, the State of Washington Department of Ecology and the U.S. Environmental Protection Agency.
- Agency for Toxic Substances and Disease Registry: The agency under the Department of Health and Human Services, Public Health Service, that is responsible for conducting health assessments at Superfund sites for EPA. (see Section 7.7)
- Agreement: The Hanford Federal Facility Agreement and Consent Order, including all attachments, addenda and modifications, which are required to be written and to be incorporated into or appended.
- Applicable or Relevant and Appropriate Requirement (ARAR): Any standard, requirement, criteria or limitation as provided in Section 121(d)(2) of CERCLA. (see Section 7.5)
- Authority: Legal jurisdiction enabling a governmental agency to administer and implement federal or state laws and regulations.
- B Plant: Old Hanford plutonium recovery and separations facility converted in 1968 for waste fractionation.
- Base RCRA Program: Those elements of the federal Resource Conservation and Recovery Act of 1976, as amended, for which the state of Washington has received authorization to implement. The state implements its own dangerous waste program in lieu of the base RCRA program.
- Burial Ground: Land area specifically designated to receive contaminated waste packages and equipment, usually in trenches covered with overburden.

### Definition of Terms Used in the Action Plan (sheet 2 of 15)

- Carbon Tetrachloride: A chlorinated organic solvent used in the plutonium extraction process at the Plutonium Finishing Plant. Carbon tetrachloride is a known human liver carcinogen via inhalation and ingestion. Other toxic effects include central nervous system damage.
- Chromium: An inorganic element, found in the environment in two forms: hexavalent and trivalent. Hexavalent chromium is carcinogenic via inhalation; hexavalent and trivalent chromium are less toxic via ingestion. Hexavalent chromium is a primary contaminant in groundwater beneath the 100 Area at Hanford.
- CERCLA Past Practice (CPP): A process by which a past practice unit containing hazardous substances will be addressed for response action (as opposed to RCRA past practice). (see Section 7.3)
- Closure: Actions taken to reduce the human health and environmental threats posed by a hazardous waste treatment, storage and/or disposal (TSD) facility or unit (along with it structures and contiguous land) after the facility or unit has received its final volume of hazardous waste. Closure must satisfy applicable requirements of 40CFR Part 264, subpart G, and of WAC 173-303-610. For purposes of this Agreement, use of the word closure also includes actions necessary for the facility or unit to meet post closure requirements.
- Code of Federal Regulations (CFR): Regulations developed by the federal government to implement statutory requirements.
- Community Relations Plan (CRP): A report that assesses and defines a community's informational needs concerning potential hazards posed by conditions at hazardous waste sites. The CRP also encourages and ensures two-way communication between an affected community and the public agency overseeing the site cleanup. (see Section 10.0)
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also known as Superfund: The federal statute enacted in 1980 and reauthorized in 1986, which provides the statutory authority for cleanup of hazardous substances that could endanger public health or welfare or the environment.
- Conceptual Design Report: DOE's initial design phase for a new hazardous waste management or support unit at Hanford; a specific element necessary in DOE's planning and budget process.
- Confined Aquifer: An aquifer having defined, relatively impermeable upper and lower boundaries and the pressure of which is significantly greater than atmospheric.

# Definition of Terms Used in the Action Plan (sheet 3 of 15)

- Containment Building (for the purposes of RCRA Interim Status Standards): A completely enclosed, self-supporting structure that is designed and constructed of manmade materials of sufficient strength and thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the units. It has a primary barrier designed to be: 1) sufficiently durable to withstand the movement of personnel and the handling of equipment within the unit and 2) operated to ensure containment and prevent the tracking of materials from the unit by personnel or equipment. (Ref. 40 CFR 265.1100)
- Contamination (Groundwater and Surface Water): An impairment of quality by biological, chemical, or radiological materials that lowers the water quality to a degree which creates a potential hazard to the environment, public health, or interferes with a beneficial use.
- Corrective Action: The RCRA processes of interim and corrective measures.

  See definitions for Interim Measure and Corrective Measure.
- Corrective Measure: An action taken under RCRA authority to permanently resolve a hazardous waste release or to significantly reduce the potential for a future release from a unit or group of units.
- Corrective Measures Implementation (CMI): The step in RCRA past practice process in which a corrective action system is designed and implemented; comparable to the Remedial Design and Remedial Action phases of the CERCLA process. (see Section 7.4)
- Corrective Measures Study (CMS): The step in the RCRA past practice process in which alternatives for a corrective action system are investigated and screened; comparable to the Feasibility Study phase of the CERCLA process. (see Section 7.4)
- Crib: An underground structure designed to receive liquid waste that can percolate into the soil directly and/or after travelling through a connected tile field.
- Cyanide: An extremely hazardous substance used in the extraction of ores, treatment of metals, and in the manufacture of pharmaceuticals.
- Dangerous Waste (DW): Those solid wastes designated in WAC 173-303-070 through 173-303-103 as dangerous or extremely hazardous wastes.
- Data Quality Objective (as used for a planning process): The formal decision making process between the laboratory and the client that defines necessary analytical requirements based on the end-use of the data.
- Days: Calendar days, unless otherwise specified. Any submittal, Written Notice of Position or written statement of dispute that would be due under the terms of this Agreement on a Saturday, Sunday or federal or state holiday shall be due on the following business day.

# Definition of Terms Used in the Action Plan (sheet 4 of 15)

- Deactivation: Activities associated with removing facility systems and/or areas from operational service with the intent of being ready for facility transition to either convert the facility for another use or move to permanent shutdown. These activities could include the removal of fuel, draining and/or de-energizing of systems, removal of accessible stored radioactive and hazardous materials and other actions to place the facility systems and/or areas in a safe and stable condition so that a surveillance and maintenance program will be able to most cost effectively prevent any unacceptable risk to the public or the environment until ultimate disposition of the facility. (Note: These activities are usually conducted during the facility transition phase.)
- Decontamination and Decommissioning (D&D)-(as defined by DOE Order 5840.2 for the D&D Program):
  - Decontamination: The process of removing radioactive and/or hazardous contamination from facilities, equipment, or soils by physical removal, washing, heating, chemical action, mechanical cleaning or other techniques to achieve a stated objective or end condition.
  - Decommissioning: Actions taken to reduce the potential health and safety impacts of DOE contaminated facilities, including activities to stabilize, reduce, or remove radioactive materials or to demolish the facilities.
- Definitive Design: DOE's design phase in which detailed construction drawings and specifications are prepared following conceptual design for a new, or modification to a facility or unit.
- Dismantlement: The process of disassembly and/or demolition of all or portions of a facility, and appropriate disposal of the residue.
- Double Shell Tank (DST): A reinforced concrete underground vessel with two inner steel liners to provide containment and backup containment of liquid wastes: annulus is instrumented to permit detection of leaks from inner liner.
- Entombment: The remedial process to encapsulate a facility in place as a method of final disposition once cleanout has been completed.
- Executive Manager: For DOE, executive managers are the Assistant Managers with responsibility for implementing terms and conditions of the Agreement regarding the projects under his/her authority. For Ecology, the executive manager is the Program Manager of the Nuclear Waste Program. For EPA Region 10, the Executive Manager is the Project Manager, Hanford Project Office.

# Definition of Terms Used in the Action Plan (sheet 5 of 15)

- Expedited Response Action: A general term referring to either an interim response action (i. e. removal action) under authority of CERCLA, or an interim measure under the authority of HSWA.
- Extremely Hazardous Waste (EHW): Those solid wastes designated in WAC 173-303-070 through 173-303-103 as dangerous or extremely hazardous wastes.
- Facility (as applied to the Facility Decommissioning Process): A free-standing building, plant, laboratory, or other enclosure and associated buildings and disposal sites under its responsibility that fulfills, or fulfilled, a specific purpose, and is owned by or otherwise under the responsibility of the DOE-HQ. (Note: This usage differs substantially from that in the Comprehensive Environmental Response, Compensation, and Liability Act [CERCLA] and RCRA).
- Facility Decommissioning Process: The sequential phases for a facility, once a shutdown decision is made by DOE-HQ, beginning with facility transition, through surveillance and maintenance (S&M), and final facility disposition.
- Facility Disposition Phase: Final period in the life of a facility. This phase occurs when no future use is identified as part of the DOE-HQ facility assessment process and priority is given to proceed with disposition. This phase primarily involves processes to achieve a final end state for the facility (e.g., entombment, and/or dismantlement and site restoration), including closure of any TSDs. Facility disposition may be integrated with cleanup of past-practice units covered under CERCLA Remedial Action or RCRA Corrective Measure Authority.
- Facility End Point Criteria (as used during facility transition phase):
  Facility-specific criteria prepared during facility transition planning to support development of the transition planning documentation, work plans, and ultimately the project management plan (see Section 14.0). Collectively these criteria provide a technical description of the acceptable state of facility components to be achieved at the end of the facility transition phase and are prepared consistent with EM acceptance criteria objectives outlined in the DOE-HQ EM Guidance Document. This definition includes a status of how tanks, piping, rooms/areas and miscellaneous systems and equipment will be left at the end of the transition phase for a period of surveillance and maintenance prior to final disposition. (Note: End point criteria for regulated units and hazardous substances that will remain in the facility following transition will be approved by the regulators.)

# Definition of Terms Used in the Action Plan (sheet 6 of 15)

- Facility End State Criteria (as used during facility disposition phase):
  Facility-specific criteria prepared during facility disposition
  planning to support development of planning documentation, work plans,
  and ultimately the disposition Project Management Plan (see Section
  14.0). It provides a technical description and end state of the
  facility or facility area to be achieved (in accordance with the NEPA
  process, CERCLA and/or RCRA requirements, stakeholder input, and final
  land use planning) at the end of the facility disposition phase.
- Facility Startup: The time at which the Department of Energy has completed their readiness assessment and has provided the operating contractor approval via letter to start initial operations. At this time the contractor has completed their readiness review verifying that: 1) all operability tests have been completed, 2) operating procedures are available for use, and 3) a trained operating staff capable of operating the facility is in place.
- Facility Surveillance and Maintenance (S&M) Phase: Period in the life of a facility following completion of the transition phase until such time as the facility is dispositioned for other use, or facility disposition has commenced. The S&M program provides direction, management, and performance assessments to be carried out in accordance with an approved S&M Plan. The S&M phase ensures that facilities are maintained in a safe and environmentally sound manner until a final disposition occurs. In addition, the S&M level of effort will be established in the S&M Plan to minimize the costs of final disposition (i.e. as low as economically achievable) whether the facility is planned by DOE-HQ to be released for alternate use or for dismantlement and site restoration, and/or entombment under the facility disposition phase.
- Facility Transition Phase: A period of time during which activities necessary to place the subject facility in a safe, stable, and environmentally sound condition, suitable for an extended period of surveillance and maintenance pending final disposition are completed. Facility transition starts with termination of operations, includes the establishment of a S&M program, and ends with the achievement of facility-specific end point criteria.

These actions could include the collective conversion of the facility for potential other uses or permanent shutdown; by the removal of fuel, draining and/or de-energizing of systems, removal of accessible stored radioactive and hazardous materials and other deactivation actions to place the facility in a safe and stable condition for the surveillance and maintenance program. This phase usually involves stabilization and deactivation processes and may also include some decontamination activities necessary to effectively result in reduced S&M cost for the facility. (Note: Facility transition documentation describing end point criteria for regulated units and hazardous substances that will remain in the facility following transition will be approved by the regulators.)

# Definition of Terms Used in the Action Plan (sheet 7 of 15)

- Fast Flux Test Facility (FFTF): A liquid metal test reactor that serves as a test tool for advanced reactor technology. Operations at the FFTF began in April 1982 and have since expanded into other areas, such as fusion research, space power systems and isotope production.
- Feasibility Study (FS): The step in the CERCLA process in which alternatives for a remedial action system are investigated and screened (see Section 7.3).
- Fiscal Year (FY): As used in this document, the federal government fiscal year, October 1 through September 30. Note that the State of Washington fiscal year is July 1 through June 30.
- Focused Feasibility Study: A study conducted such that a limited number of alternative are evaluated that are focused to the scope of the response action planned.
- French Drain: A rock-filled encasement with an open bottom to allow seepage of liquid waste into the ground.
- Future Site Uses Working Group: A group of representatives from tribal, government, business, economic development, labor, agriculture, environmental groups, and public interest groups with interests in Hanford. The group was charged with the task of articulating a range of visions for the future use of the Hanford Site, discussion on the implications of those visions on cleanup, and probing for commonalities and convergencies within the participants' visions as they applied to cleanup scenarios and priorities.
- Groundwater: Water which fills the spaces between soil, sand, rock, and gravel particles beneath the earth's surface. Rain that does not immediately flow to streams and rivers slowly percolates down through the soil to a point of saturation to form groundwater reservoirs. Groundwater flows at a very slow rate, compared to surface water, along gradients which often lead to river systems. If occurring in significant quantities, groundwater can be withdrawn for domestic, industrial, and agricultural purposes.
- Grout: A fluid mixture of cementitious materials and liquid waste that sets up as a solid mass and is used for waste fixation and immobilization. The Hanford Grout facility will be regulated under the RCRA program.
- Grout Campaign: The complete filling of one vault with treated waste/grout mixture.
- Hanford Operable Units Report: Documents the assignment of individual units to operable units and provides the rationale and justification for the prioritization of the operable units for the remedial investigation process.

# Definition of Terms Used in the Action Plan (sheet 8 of 15)

- Hanford Past Practice Strategy: A strategy developed with the primary objective to develop a uniform, stream-lined process to meet statutory requirements and integrate/coordinate CERCLA RI/FS and RCRA past-practice RFI/CMS requirements through effective cleanup actions.
- Hanford Site: Also referred to as "Hanford" or "Site", the approximately 560 square miles in Southeastern Washington State, excluding leased lands, and State and Bonneville Power Administration owned lands, which is owned by the United States and which is commonly known as the Hanford Reservation (Figure 7-1 in the Action Plan). This definition is not intended to limit CERCLA or RCRA authority regarding hazardous wastes, substances, pollutants or contaminants which have migrated off the Hanford Site.
- Hanford Site Waste Management Units Report (HSWMUR): Document listing all known waste management units at Hanford and summarizes the wastes handled, dates of use and other information about each unit. (see Section 3.5)
- Hanford Waste Vitrification Plant (HWVP): A facility to be constructed for treatment of high level liquid radioactive waste. Liquids are vitrified or glassified in order to reduce the potential for radioactive and hazardous contamination leaching into the environment. This unit will be regulated under RCRA.
- Hazardous and Solid Waste Amendments of 1984, P.L. 98-616 (HSWA): The reauthorization of the RCRA program, enacted by Congress on November 8, 1984.
- Hazardous Substance: Substances regulated under CERCLA, as defined in CERCLA Sec. 101(14).
- Hazardous Waste: Those wastes included in the definitions of RCRA 1004(5) and RCW 70.105.010(15).
- Hazardous Waste Constituent, also referred to as "hazardous constituent" or "constituent": A constituent that caused the Administrator of the Environmental Protection Agency to list the hazardous waste in 40 CFR Part 261, Subpart D or a constituent listed in Table 1 of 40 CFR 261.24. (Hazardous constituents are listed in 40 CFR Part 261, Appendix VIII.)
- Hazardous Waste Management Act (HWMA): The Hazardous Waste Management Act, codified at Ch. 70.105 RCW, and its implementing regulation at Ch. 173-303 Washington Administrative Code. (A state program, commonly referred to as the State Dangerous Waste Program, which regulates the generation, treatment, storage and/or disposal of hazardous wastes in cooperation with RCRA).

# Definition of Terms Used in the Action Plan (sheet 9 of 15)

- Interagency Management Integration Team (IAMIT): A committee of the Executive Managers from each agency with the functions of negotiation of new milestones, adjustment of scope and schedule of existing interim milestones, and Tri-Party Agreement Issue Resolution/Dispute Resolution. The IAMIT also serves as the interface with the Hanford Advisory Board (HAB).
- Imminent and Substantial Endangerment: A situation in which the lead regulatory agency and DOE immediately respond to a release of a hazardous substance or hazardous waste in order to abate the danger or threat to public health or welfare or the environment. Such action may be taken under CERCLA, RCRA, or HWMA authority, as appropriate.
- In-Situ Vitrification (ISV): A process by which electrical current is passed through contaminated soils in-place heating the soil to a molten state. While cooling the soils become a homogenous glass-like block thereby minimizing the leachability of contaminants.
- Interim Isolation (as pertains to Single-Shell Tanks): Disconnecting and blanking or capping pipelines from SST systems and installing barriers to avoid inadvertent liquid addition.
- Interim Measure (IM): An expedited response action taken under RCRA authority to mitigate a hazardous waste release or to reduce the potential for a future release from a unit. (see Section 7.2.4)
- Interim Response Action (IRA): An expedited response action taken under CERCLA authority to mitigate a hazardous substance release or to reduce the potential for a future release from a unit. (see Section 7.2.4)

  Referred to as a removal action in the NCP.
- Interim Stabilization (as pertains to Single-Shell Tanks): Is the removal of pumpable supernatant and interstitial liquid from SST systems into DST systems. As much liquid as practicable will be removed. Supernatant is free standing liquid. Interstitial liquid is that liquid in the waste matrix contained within the pore spaces of the salts and sludges, some of which is capable of gravity drainage while the rest is held by capillary forces.
- Interim Status: A RCRA provision which grants a facility the right to continue to operate (treat, store, or dispose of hazardous waste) in accordance with applicable RCRA or state regulations until a RCRA permit is issued.
- Land Disposal Restriction Waste (LDR): RCRA hazardous wastes, subject to Section 3004(d) through (m) of RCRA and 40 CFR 268.

# Definition of Terms Used in the Action Plan (sheet 10 of 15)

- Lead Regulatory Agency: The agency (EPA or Ecology) which is assigned regulatory oversight responsibility with respect to actions under this Agreement regarding a particular Operable Unit, TSD group/unit or milestone pursuant to Section 5.6 of the Action Plan. The designation of a Lead Regulatory Agency shall not change the jurisdictional authorities of the Parties.
- National Oil and Hazardous Substances Pollution Contingency Plan (NCP): The title of the federal regulations (40 CFR Part 300) promulgated under the authority of CERCLA.
- National Priorities List (NPL): EPA's list of priority waste sites containing hazardous substances that will be investigated and cleaned up under the Superfund program.
- Notice of Deficiency (NOD): A RCRA administrative action in which the lead regulatory agency defines specific deficiencies or omissions in RCRA primary documents. (see Section 9.2)
- Operable Unit: A discrete portion of the Hanford Site, as identified in Section 3.3 of the Action Plan. An operable unit at Hanford is a group of land disposal sites placed together for the purposes of doing a Remedial Investigation/ Feasibility Study (RI/FS) and subsequent cleanup actions. The primary criteria for placement of a site into an operable unit includes geographic proximity, similarity of waste characteristics and site type, and the possibility for economies of scale.
- Parties: The U.S. Environmental Protection Agency, the State of Washington Department of Ecology, and the U.S. Department of Energy, all of which are signing the Agreement and Action Plan.
- Plutonium Uranium Extraction (PUREX): Latest in a line of separation technologies, preceded by bismuth phosphate and REDOX.
- Post-Closure: The period of care, including maintenance, monitoring, and reporting, that is undertaken at a facility or unit (e. g. landfill or impoundment closed as disposal facilities or units) after closure to ensure continued environmental safety. Post closure care must satisfy applicable requirements of 40 CFR Part 264, subpart G, and of WAC 173-303-610.
- Preliminary Assessment and Site Inspection (PA/SI): Normally the first step in analyzing the nature and severity of contamination at a potential CERCLA site and is used to determine if a site should be nominated for the NPL. Based upon extensive documentation previously submitted to EPA by DOE, this requirement is considered to have been satisfied for the Hanford Site.

# Definition of Terms Used in the Action Plan (sheet 11 of 15)

- Primary Documents: Documents which contain information, documentation, data, and proposals upon which key decisions will be made with respect to the remedial action or permitting process. Primary documents are subject to dispute resolution and are part of the administrative record. (see Section 9.2)
- Project Manager: The individual responsible for implementing the terms and conditions of the Agreement at the specific operable unit level on behalf of his/her respective Party. The project manager has direct responsibility for completion of targets and milestones and has authority to agree to modifications of scope and schedule, in accordance with Section 12.0 of the Action Plan.
- Quality Assurance (QA): The systematic actions necessary to provide adequate confidence that a material, component, system, process, or facility performs satisfactorily, or as planned in service.
- Quality Control (QC): The quality assurance actions that control the attributes of a material, process, component, system, or facility in accordance with predetermined quality requirements.
- Radioactive Mixed Waste: Also called "mixed waste", wastes that contain both hazardous waste subject to RCRA, as amended, and radioactive waste subject to the Atomic Energy Act of 1954, as amended.

  Mixed waste is regulated under the State Dangerous Waste Program.
- Radioactive Waste: A solid, liquid, or gaseous material of negligible economic value that contains radionuclides in excess of threshold quantities except for radioactive material from post-weapons-test activities.
- Record of Decision (ROD): The CERCLA document used to select the method of remedial action to be implemented at a site after the Feasibility Study/Proposed Plan process has been completed. (see Section 7.3)
- Remedial Action: An action taken under CERCLA authority to permanently resolve a hazardous substance release or to significantly reduce the potential for a release from a unit or group of units.
- Remedial Action (RA) Phase: The CERCLA process of remedial action implementation after the investigative steps have been completed and after issuance of the Record of Decision and after Remedial Design has been completed. (see Section 7.3)
- Remedial Design (RD): The CERCLA process of design for the remedial action alternative that was selected in the Record of Decision. (see Section 7.3)

# Definition of Terms Used in the Action Plan (sheet 12 of 15)

- Remedial Investigation (RI): The CERCLA process of determining the extent of hazardous substance contamination and, as appropriate, conducting treatability investigations. The RI is done in conjunction with the Feasibility Study. (see Section 7.3)
- Resource Conservation and Recovery Act (RCRA): 42 U.S.C. Sec. 6901 et seq., as amended. For purposes of this Agreement, "RCRA" also includes the HWMA Ch. 70.105 RCW. (A federal law enacted in 1976 that regulates the generation, transportation, treatment, storage, and disposal of hazardous wastes).
- Response Action: The CERCLA processes of interim response and remedial actions. See definitions for Interim Response Action and Remedial Action.
- Responsiveness Summary: A summary of oral and/or written public comments received during a comment period on key documents, and agency responses to those comments. The responsiveness summary is especially valuable during the decision process at a site, because it highlights community concerns about the proposed decision.
- RCRA Facility Assessment (RFA): The initial RCRA process to determine whether corrective action for a RCRA past practice unit is warranted, or to define what additional data must be gathered to make this determination; analogous to a CERCLA Preliminary Assessment and Site Inspection (see Section 7.4)
- RCRA Facility Investigation (RFI): The RCRA process of determining the extent of hazardous waste contamination; analogous to the CERCLA Remedial Investigation. (see Section 7.4)
- RCRA Past Practice (RPP): A process by which a past practice unit containing hazardous wastes or hazardous constituents will be addressed for corrective action, regardless of the date waste was received or discharged at a unit. (see Section 7.4)
- RCRA Permit: A permit under RCRA and/or HWMA for treatment, storage or disposal of hazardous waste.
- Revised Code of Washington (RCW): The Washington State statutes.
- Risk Assessment: An analysis of the potential adverse effects to human health and/or the environment (current or future) caused by radionuclide and/or hazardous substance releases from a site in the absence of any actions to control or mitigate these releases.

# Definition of Terms Used in the Action Plan (sheet 13 of 15)

- S&M Surplus Facilities: Facilities on the Hanford Site transferred from DOE Operations to the surveillance and maintenance phase under the responsibility of EM (Office of Environmental Restoration) prior to the establishment of the EM (Office of Facility Transition). The facility decommissioning process for these special case facilities will be completed entirely under the disposition phase funded on a DOE-HQ priority basis by EM (Office of Environmental Restoration).
- Secondary Document: As distinguished from Primary Document, it is considered to be a supporting document providing information or data and does not, in itself, reflect key decisions. A secondary document is subject to review by the regulatory agencies and is part of the administrative record. It is not subject to dispute resolution. (see Section 9.2)
- Shutdown Decision: A formal DOE-HQ documented determination that a facility is surplus (see surplus facility).
- Signatories: The Signatories are: For the DOE, the signatory shall be the Manager, Richland Operations Office. For the EPA, the Signatory shall be the Regional Administrator for Region X. For the State of Washington Department of Ecology, the signatory shall be the Director.
- Single-Shell Tank (SST): At Hanford, 149 single-shell carbon steel tanks (ranging in size from 55,000 to 1 million gallons) that have been used to store high-level radioactive wastes.
- Skyshine: Gamma radiation emitted from a source that is reflected off particles in the air, sometimes landing several hundred meters from their point of origin.
- Stabilization: The combination of steps or activities to secure, convert and/or confine radioactive and/or hazardous material within enclosures, exhaust ducts, and process equipment within a facility. These activities may include; removal of loose equipment items, draining process fluids to the maximum extent practicable, coating internal surfaces with a fixative coating, removal of waste materials, installing seals and blank flanges, termination of nonessential energy sources, and/or conversion of reactive residues to a stable form suitable for extended safe storage. (Note: Stabilization activities are usually performed during the facility transition phase, but may be performed before the transition phase as a best management practice for cost efficiency, as low as reasonably achievable [ALARA], and/or safety purposes.)
- State of Washington Department of Ecology (Ecology): The State of Washington Department of Ecology, its employees and Authorized Representatives.

# Definition of Terms Used in the Action Plan (sheet 14 of 15)

- State-only Wastes: Any liquid, solid, gas or sludge, regardless of quantity that exhibits any of the physical, chemical, or biological properties described in WAC 173-303-070 through 103.
- Superfund Amendments and Reauthorization Act of 1986 (SARA): The reauthorization of the CERCLA statute, enacted by Congress in December 1986.
- Support Agency: The regulatory agency (EPA or Ecology) which is not designated as the lead regulatory agency at an operable unit.

  The support agency will provide assistance to the lead regulatory agency, as needed.
- Surplus Facility: Any facility or site (including equipment) that has no identified programmatic use by the operating phase Program Secretarial Officer.
- Surveillance and Maintenance: Activities conducted to assure that a site or facility remains in a physically safe and environmentally secure condition, and includes periodic inspections and monitoring of the property, appropriate contamination control actions, and required maintenance of barriers controlling access. (Note: This process continues as a best management practice through the facility disposition phase until final disposition is achieved as defined in Section 14.0 of this Action Plan.)
- Tank Waste Task Force: A group of representatives from tribal, government, business, economic development, labor, agriculture, environmental groups, and public interest groups focused on Hanford, labor, and public health. The task force was charged with providing values relative to the Tank Waste Remediation System and with principles for the overall Tri-Party Agreement package during the renegotiations of the Tri-Party Agreement, Summer 1993.
- Technical Assistance Grant (TAG): A grant available from EPA designed to enhance public participation as described in Section 117 of CERCLA. A maximum of \$50,000 per NPL site is available. Grant money must be used for the purpose of interpreting information regarding CERCLA activity at the site.
- Treatment, Storage, or Disposal (TSD): A RCRA term referring to the treatment, storage, or disposal of hazardous waste. Under RCRA, TSD activity can occur only at units which received or stored hazardous waste after November 19, 1980, the effective date of the RCRA regulations.
- Treatment, Storage, or Disposal (TSD) Group: A grouping of TSD units for the purpose of preparing and submitting a permit application and/or closure plan pursuant to the requirements under RCRA, as determined in the Action Plan.

# Definition of Terms Used in the Action Plan (sheet 15 of 15)

- Treatment, Storage, or Disposal (TSD) Unit: A unit used for treatment, storage, or disposal of hazardous waste and is required to be permitted and/or closed pursuant to RCRA requirements as determined in this Action Plan.
- Unit Manager: The individual responsible for implementing the terms and conditions of the Action Plan at the operable unit level on behalf of his/her respective Party.
- United States Department of Energy (DOE): The United States Department of Energy, its employees and Authorized Representatives.
- United States Environmental Protection Agency (EPA): The United States Environmental Protection Agency, its employees and Authorized Representatives.
- Unplanned Release: An unintentional release, including a spill, of hazardous waste or hazardous substance into the environment.
- Vadose Zone: The unsaturated region of soil between the ground surface and the water table.
- Validated Data: Data that DOE has determined meets criteria contained in the "Data Validation Guidelines for Contract Laboratory Program Organic Analyses" and "Data Validation Guidelines for Contract Laboratory Program Inorganic Analyses" that are contained in the Sample Management Administrative Manual.
- Verified Data: Data that has been checked for accuracy and consistency by DOE following a transfer action (e.g., from manual log to computer or from distributed data base to centralized data repository).
- Vitrification: [see Hanford Waste Vitrification Plant (HWVP) or In-Situ Vitrification.]
- Washington Administrative Code (WAC): The Washington State regulations.
- Waste Information Data System (WIDS): A database which identifies all waste management units on the Hanford Site. It describes the current status of each unit, along with descriptive information. (see Section 3.5)

# Definition of Other Technical Terms (sheet 1 of 6)

- Note: These terms are <u>not</u> considered part of the Action Plan, but are provided to the reader for informational purposes only.
- Absorption: The process by which radiation imparts some or all of its energy to any material through which it passes; the taking up of a substance by another substance.
- Alpha-Emitter: A radioactive substance, such as plutonium, that emits alpha particles. Alpha radiation is much less penetrating than gamma or beta radiation, but is much more ionizing, and therefore potentially extremely toxic.
- Aquifer: A geologic formation, group of formations, or part of a formation capable of yielding significant quantities of groundwater to wells, springs, or other points of discharge.
- Aquifer System: A logical grouping of aquifers in a region, grouped on the basis of characteristics such as superficial geology, water quality, and vulnerability.
- Annulus: Also called "annular space", this is the space between the outer and inner casing of a well, or the space between the wall of the drilled hole and the casing.
- As Low As Reasonably Achievable (ALARA): A radiation protection principle applied to radiation exposure, with costs and benefits taken into account.
- Background Water Quality: The natural levels of chemical, physical, biological, and radiological constituents or parameters upgradient of a unit, practice, or activity that have not been affected by that unit, practice, or activity.
- Barrier: A manmade addition to a disposal site that is designed to retard or preclude contaminant transport and/or to preserve the integrity of the disposal site.
- Basalt: A dark, fine-grained, extrusive igneous rock.
- Basalt Waste Isolation Project (BWIP): Program to study Hanford as a possible location for the high-level nuclear waste repository.
- Beneficial Uses: Uses of waters of the state that include but are not limited to use for domestic water, irrigation, agriculture, fish, shellfish, recreation, industrial water, and generation of electric power.
- Beta Radiation: Essentially weightless charged particles (electrons or positrons) emitted from the nucleus of atoms undergoing nuclear transformation.

## Definition of Other Technical Terms (sheet 2 of 6)

- Bottoms (tank bottoms): The concentrated material remaining in the waste tanks after most of the contents have been pumped out for solidification or transfer to other storage tanks; refers also to specific tanks used to collect such bottoms waste from several other tanks.
- Byproduct Material: Waste produced by extraction or concentration of uranium or thorium from any ore processed primarily for its source material content, including discrete surface waste resulting from uranium solution extraction processes; excludes fission products and other radioactive material covered in 10 CFR Part 20.3(3).
- Cold Standby: A condition whereby a reactor is defueled and maintained in a state that will allow the reactor to be restarted, if necessary.
- Criteria: Numerical or narrative values which represent the maximum level a contaminant must not exceed to maintain a given beneficial use.
- Curie (Ci): The basic unit used to describe the intensity of radioactivity.

  A curie is equal disintegrations to 37 billion per second.
- Defense Waste: Radioactive waste from any activity performed in whole or in part in support of DOE atomic energy defense activities; term excludes waste under purview of the Nuclear Regulatory Commission or generated by the commercial nuclear power industry.
- Ditch: An unlined conveyance for transport of liquid wastes to a pond or trench structure designed for percolation.
- Drywell: A drainage receptacle constructed by digging a hole and refilling with coarse gravel; also a watertight well casing used for inserting monitoring equipment.
- Enforcement Standard: The value assigned to any contaminant for the purposes of regulating that contaminant.
- Ethylene Glycol: An organic compound used primarily as an anti-freeze. Ethylene glycol is moderately toxic when ingested.
- Evapotranspiration: The combined loss of water from soil by evaporation and from the surfaces of plant structures.
- Half-life: The time required for a radionuclide's activity to decay to half its value, used as a measure of the persistence of radioactive materials; each radionuclide has a characteristic constant half-life.
- Halogenated Hydrocarbons: Organic compounds containing atoms such as chlorine, fluorine, iodine, or bromine.

## Definition of Other Technical Terms (sheet 3 of 6)

- Hydraulic Continuity: A term used to describe the relationship between groundwater and surface water, wherein they are often connected, allowing flow in either or both directions.
- Iodine: A gaseous inorganic chemical produced in the plutonium production reactors at Hanford. Radioactive isotopes of iodine are found in most radioactive waste streams at Hanford.
- Ion Exchange: Process for selectively removing a hazardous constituent from a waste stream by reversibly transferring ions between an insoluble solid and the waste stream; the exchange medium (usually from a column of resin) can then be washed to collect the waste or taken directly to disposal. Both the residue and liquid stream from this process may still be a hazardous waste.
- Isotope: Any of two or more forms of a chemical with the same atomic number and nearly identical chemical behavior but different atomic mass and physical (e.g. radioactive) properties.
- Jet Pumping: A technique for removing interstitial liquor from single-shell tanks.
- Leachate: The product obtained from the passage of water through landfills or storage piles.
- Lead: A heavy metal used for shielding material in nuclear reactors. Lead can be toxic when ingested or inhaled. Lead can impair nervous system development in children and can cause nervous system damage in adults. Lead is also a reproductive toxin.
- Level of Detection: The level at which a constituent can be detected by a department approved method of analysis.
- Liquid Waste Disposal Site: Units used for discharge of contaminated liquids to the ground.
- Low-Level Waste (LLW): Typically contains small amounts of radioactivity in large volumes, and most can be handled without protective shielding. Solid low-level waste consists of trash such as clothing, tools, and glassware. Liquid waste consists primarily of water circulated as cooling water.
- Lysimeter: An instrument for measuring the water percolating through soils and determining the materials dissolved by the water.
- Maximum Contaminant Level (MCL): The maximum level of a contaminant in water that can exist without harming the beneficial use of drinking water. Defined specifically in the Safe Drinking Water Act.

### Definition of Other Technical Terms (sheet 4 of 6)

- N-Reactor: N-Reactor is a dual purpose reactor, generating electricity from its steam by-product in addition to producing plutonium. It is the only plutonium production reactor at Hanford that has operated since 1971. It is currently in standby status.
- National Pollutant Discharge Elimination System (NPDES): Grants authority to EPA and authorized states to issue permits for discharge of wastewaters into certain surface water bodies within prescribed limits for constituents, concentrations and volumes.

Percolation: Gravity flow of water through pore spaces in rock or soil.

pH: A measure of acidity and alkalinity.

Plume: A defined area of groundwater contamination.

- Plutonium: A radioactive element used as the primary fuel in nuclear weapons. Plutonium is purified during various production operations at Hanford.
- Point of Compliance: A RCRA term, the point at which the groundwater protection standard applies and where monitoring must be conducted. The point of compliance is a vertical surface located at the hydraulically downgradient limit of the waste management area that extends down into the uppermost aquifer underlying the regulated units.
- Ponds: Surface impoundments used to contain low-level liquid radioactive wastes, mixed wastes, or hazardous wastes.
- Receptor: Any living entity potentially affected by release of substances to the environment from Hanford operations.
- Recharge: The net process of groundwater replenishment by infiltration of surface water through the soil column. Sources of recharge include precipitation and surface runoff from natural and manmade water courses and impoundments.
- Reduction/Oxidation (REDOX): A facility and/or processes for separating plutonium from irradiated reactor fuels by using successive steps of chemical reduction/oxidation together with solvent extraction.
- Reverse Well: Liquid waste disposal structure consisting of a well (sometimes drilled into the water table) into which waste solutions were pumped.
- Salt Cake: Crystallized nitrate and other salts deposited in waste tanks, usually after active measures are taken to remove moisture.
- Sanitary Landfill: A burial operation for disposing of nonradioactive, nonhazardous waste or garbage.

## Definition of Other Technical Terms (sheet 5 of 6)

- Saturated Zone: The subsurface zone in which all interconnected voids or pores are filled with water.
- Seepage Pond: An artificial body of surface water formed by discharge from Hanford process operations.
- Solid Waste (radioactive): Either solid radioactive material or solid objects that contain radioactive material or bear radioactive surface contamination.
- Stabilization: Treatment of waste or a waste site to protect the environment from contamination.
- State Waste Discharge Permit: A permit issued pursuant to Chapter 173-216 WAC.
- Strontium 90: A highly radioactive isotope common in most radioactive waste streams at Hanford.
- Sulfuric Acid: A highly corrosive inorganic acid used in various production processes at Hanford.
- Surplus Facility: Any facility or site (including equipment) that has no identified programmatic use and may or may not be radioactively contaminated to levels that require controlled access.
- Synthetic Organic: Man-made chemical compounds that contain carbon and may be highly persistent in the environment.
- Tank Farm: An installation of multiple adjacent tanks, usually interconnected, for storage of liquid waste, or substances used in Hanford operations. Major tank farms at Hanford at underground.
- Transuranic (TRU) Waste: Waste contaminated with long-lived transuranic elements in concentrations with in a specified range established by DOE, EPA, and the Nuclear Regulatory Commission (NRC). These are elements shown above uranium on the chemistry periodic table, such as plutonium, americium, and neptunium.
- Trend Analysis: A statistical methodology used to detect net changes or trends in contaminant levels over time.
- Tritium: A radioactive isotope of hydrogen used in nuclear weapons to increase the efficiency of the nuclear reaction.
- Tunnel: A large underground storage structure for large pieces of equipment, often on railroad cars; PUREX storage tunnels.

### Definition of Other Technical Terms (sheet 6 of 6)

- Unconfined Aquifer: An aquifer overlain with permeable material and sensitive to contamination; also, an aquifer that has a water table or surface at atmospheric pressure.
- Vault: A RCRA approved, subsurface structure designed for permanent disposal of low-level mixed wastes in grout.
- Washington Guidance Level (WGL): An interim health level for a contaminant which does not have an established criterion but which may create a public health hazard. A WGL is based on less stringent development processes than a criterion and is meant to act as an enforcement guide until a criterion is established. WGL will be based on the most current available data which may include, but not be limited to: (a) USEPA Maximum Contaminant Level Goals, (b) USEPA Priority Pollutant Values, (c) USEPA Ambient Water Quality Criteria, (d) USEPA Health Advisories, (e) Other States criteria or Guidance Levels, and (f) Department of Social and Health Services Health Risk Assessments.
- Water Table: The upper boundary of an unconfined aquifer surface below which soil saturated with groundwater occurs; defined by the levels at which water stands in wells that barely penetrate the aquifer.
- 200 Areas Plateau: The highest portion (aside from Rattlesnake and Gable Mountains) on the Hanford Site, containing most of the waste processing and storage facilities.

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APPENDIX B
Listing of Treatment, Storage, and Disposal Groups/Units. (sheet 1 of 17)

Treatme	ent, Storage, and Disposal	Planned Action		
Group Number	Group/Units	Operable Unit (if applicable)	Closure*	Operating Permit
D-1-1	100-D Ponds (120-D-1)	100-DR-1	Х	-
T-1-1	105-DR (122-DR-1) Sodium Fire Facility		Χ	. 1
D-1-2	1301-N/1325-N Liquid Waste Disposal Facilities	100-NR-1	X	:
	116-N-1 Crib 116-N-3 Crib			
T-1-2	1324-N/1324-NA Liquid Waste Facilities	100-NR-1	X	
	120-N-1 Pond 120-N-2 Neutralization Unit			,
T-1-3**	1706-KE Treatment Facility (116-KE6 A-D):		X	
	1706-KE Waste Accumulation Tank 1706-KE Ion Exchange Column 1706-KE Solidification Unit (Evaporator) 1706-KE Condensate Tank			

APPENDIX B
Listing of Treatment, Storage, and Disposal Groups/Units. (sheet 2 of 17)

Treatme	nt, Storage, and Disposal		Planned Action		
Group Number	Group/Units	Operable Unit (if applicable)	Closure*	Operating Permit	
T-1-4	183-H Solar Evaporation Basins (116-H-6)	100-HR-1	Х		
S-2-8	200 East Area Liquid Effluent Retention Facility (LERF)			Storage	
T-2-1	200-E8 Borrow Pit Demolition Site		Χ		
T-2-2	200-W Ashpit Demolition \$ite		Χ		
T-2-3***	204-AR Waste Unloading Station			Treatment	
S-2-7	207-A South Retention Basin	200-P0-5	Χ		
D-2-1	2101-M Pond		X		
D-2-2	216-A-10 Crib	200-P0-2	X		
D-2-3	216-A-29 Ditch	200-BP-11	Х		
D-2-4	216-A-36B Crib	200-P0-2	Χ		
D-2-10	216-A-37-1 Crib	200-P0-4	X		
D-2-5	216-B-3 Pond System:	200-BP-11	χ		

216-B-3 Pond 216-B-3A Pond 216-B-3B Pond 216-B-3C Pond 216-B-3-3 Ditch

APPENDIX B

Listing of Treatment, Storage, and Disposal Groups/Units. (sheet 3 of 17)

Treatme	ent, Storage, and Disposal		Planned Action	
Group Number	Group/Units	Operable Unit (if applicable)	Closure*	Operating Permit
S-2-3	Double-Shell Tanks			Storage
	241-AN Farm (7 tanks) 241-AP Farm (8 tanks) 241-AW Farm (6 tanks) 241-AY Farm (2 tanks/2 diversion boxes) 241-AZ Farm (2 tanks) 241-SY Farm (3 tanks) 241-EW-151 Vent Station Catch Tank 244-AR Vault 244-CR Vault 244-TX Receiver Tank 244-BX Receiver Tank 244-B Receiver Tank 244-A Receiver Tank			
S-2-9	241-CX-70 Tank	200-S0-1	X	
D-2-6	216-B-63 Trench	200-BP-11	X	
D-2-7	216-S-10 Pond and Ditch	200-R0-1	X	
	216-S-10D Ditch 216-S-10P Pond			

Treatme	ent, Storage, and Disposal		P1	anned Action
Group Number	Group/Units	Operable Unit (if applicable)	Closure*	Operating Permit
D-2-8	216-U-12 Crib	200-UP-2	X	
D-2-9	Low-Level Burial Grounds			
	218-E-10 218-E-12B 218-W-3A 218-W-3AE 218-W-4B 218-W-4C 218-W-5 218-W-6			Landfill Landfill Landfill Landfill Landfill Landfill Landfill Landfill
S-2-1	Purex Tunnels 1 and 2  218-E-14 218-E-15			Storage
T-2-4**	221-T Containment System Test Facility		X	
TS-2-1	222-S Laboratories Treatment Tanks and Storage Building			
	222-S Storage Pad  *** 219-S Hot Waste Facility Tank 102  *** 219-S Hot Waste Facility Tank 103			Storage Treatment Treatment

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APPENDIX B

Listing of Treatment, Storage, and Disposal Groups/Units. (sheet 5 of 17)

Treatmo	ent, Storage, and Disposal		P1	anned Action
Group Number	Group/Units	Operable Unit (if applicable)	Closure*	Operating Permit
S-2-2	224-T Transuranic Storage and Assay Facility (TRUSAF)	71		Storage
S-2-4	Single-Shell Tanks		Χ	
	241-A Farm (6 tanks/2 diversion boxes) 241-AX Farm (4 tanks/1 diversion box) 241-B Farm (16 tanks/5 diversion boxes) 241-BX Farm (12 tanks/6 diversion boxes) 241-BY Farm (12 tanks/3 diversion boxes) 241-C Farm (16 tanks/6 diversion boxes) 241-S Farm (12 tanks/2 diversion boxes) 241-SX Farm (15 tanks/2 diversion boxes) 241-T Farm (16 tanks/6 diversion boxes) 241-TX Farm (18 tanks/4 diversion boxes) 241-TY Farm (6 tanks/1 diversion boxes) 241-U Farm (16 tanks/8 diversion boxes)	200-P0-3 200-P0-3 200-BP-7 200-BP-7 200-BP-7 200-R0-4 200-R0-4 200-TP-6 200-TP-5 200-TP-5 200-UP-3		

Operable Unit Title of Units

Unit Type

S-2-4 Single Shell	Tanks (continued)	· .	
200-BP-7	241-B Tank Farm (16 Units)	Single-Shell Tank	
	241-B-151	Diversion Box .	
	241-B-152	Diversion Box	
	241-B-153	Diversion Box	
	241-B-252	Diversion Box	
	241-B-301B	Catch Tank	
	241-BR-152	Diversion Box	
	241-BX Tank Farm (12 Units)	Single-Shell Tank	
	241-BX-153	Diversion Box	
	241-BX-302A	Catch Tank	
	241-BXR-151	Diversion Box	
1 34 A . A . A . A . A . A . A . A . A . A	241-BXR-152	Diversion Box	
	241-BXR-153	Diversion Box	
	241-BY Tank Farm (12 Units)	Single-Shell Tank	
	241-BYR-152	Diversion Box	
	241-BYR-153	Diversion Box	
	241-BYR-154	Diversion Box	
	242-B-151	Diversion Box	
	244-BXR	Receiving Vault	,
	2607-EB	Septic Tank	
	UN-200-E-43	Unplanned Release	
	UN-200-E-76	Unplanned Release	
	UN-200-E-79	Unplanned Release	
	UN-200-E-101	Unplanned Release	
	UN-200-E-105	Unplanned Release	
	UN-200-E-109	Unplanned Release	

## APPENDIX B

Listing of Treatment, Storage, and Disposal Groups/Units. (sheet 7 of 17) Operable Unit Title of Units <u>Unit Type</u>

S - 2 - 4	Single	Shell	Tanks	(continued)
	0111910		1 601111	

-2-4 Single Shell	Tanks (continued)		
200-P0-3	216-A-39	Crib	
	216-C-8	French Drain	
	241-A Tank Farm (6 Units)	Single-Shell Tank	
	24Ì-A-152	Diversion Box	
	241-A-153	Diversion Box	
	241-A-350	Catch Tank	
	241-A-417	Catch Tank	
	241-A-A	Diversion Box	
	241-A-B	Diversion Box	
	241-AR-151	Diversion Box	
	241-AX Tank Farm	Single-Shell Tank	
	(4 Units)	•	
	24Ì-AX-151	Diversion Box	
	241-AX-152-CT	Catch Tank	
	241-AX-152-DS	Diversion Box	
	241-AX-155	Diversion Box	
	241-AX-501	Valve Pit	
	241-AX-A	Diversion Box	
	241-AX-B	Diversion Box	

Operable Unit Title of Units	Un
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S-2-4 Single Shell	Tanks (continued)		
200-P0-3 (Continued)	241-C Tank Farm (16 Units)	Single-Shell Tank	
	241-C-151	Diversion Box	
	241-C-152	Diversion Box	
	241-C-153	Diversion Box	
	241-C-252	Diversion Box	
	241-C-301C	Catch Tank	
	241-CR-151	Diversion Box	
	241-CR-152	Diversion Box	
	241-CR-153	Diversion Box	
	241-ER-153	Diversion Box	•
	2607-ED	Septic Tank	
	2607-EG	Septic Tank	
	2607-EJ	Septic Tank	
	UN-200-E-16	Unplanned Release	
	UN-200-E-18	Unplanned Release	
	UN-200-E-27	Unplanned Release	
	UN-200-E-47	Unplanned Release	
	UN-200-E-48	Unplanned Release	
	UN-200-E-68	Unplanned Release	
	UN-200-E-72	Unplanned Release	
	UN-200-E-81	Unplanned Release	
	UN-200-E-82	Unplanned Release	
	UN-200-E-86	Unplanned Release	
	UN-200-E-91	Unplanned Release	
	UN-200-E-94	Unplanned Release	
	UN-200-E-99	Unplanned Release	
	UN-200-E-100	Unplanned Release	
	UN-200-E-107	Unplanned Release	
	UN-200-E-118	Unplanned Release	

Operable Unit Title of Units Unit Type

S-2-4 Single Shell	Tanks (continued)		
200-R0-4	241-S Tank Farm (12 Units)	Single-Shell Tank	
	241-S-152	Diversion Box	
	241-S-302B	Catch Tank	
	241-S-A	Valve Pit	
	241-S-B	Valve Pit	
	241-S-C	Valve Pit	
	241-S-D	Valve Pit	
	241-SX Tank Farm (15 Units)	Single-Shell Tank	
	241-SX-151	Diversion Box	
	241-SX-152	Diversion Box	
	UN-200~W-10	Unplanned Release	
	UN-200-W-80	Unplanned Release	
	UN-200-W-81	Unplanned Release	
200-TP-5	241-TX Tank Farm (18 Units)	Single-Shell Tank	
	241-TX-153	Diversion Box	
	241-TX-302A	Catch Tank	
	241-TX-302-XB	Catch Tank	
	241-TXR	Vault	
	241-TXR-152	Diversion Box	
	241-TXR-153	Diversion Box	
	241-TY Tank Farm (6 Units)	Single-Shell Tank	
	241-TY-153	Diversion Box	
	241-TY-302A	Catch Tank	
	241-TY-302B	Catch Tank	
	242-T-151	Diversion Box	
	244-TXR	Vault	
	2607-WT	Septic Tank	
	2607-WTX	Septic Tank	
	UN-200-W-17	Unplanned Release	
	UN-200-W-76	Unplanned Release	
	UN-200-W-100	Unplanned Release	

## APPENDIX B

Listing of Treatment, Storage, and Disposal Groups/Units. (sheet 10 of 17)

<u>Operable Unit Title of Units</u>

<u>Unit Type</u>

S-2-4 Single Shell	Tanks (continued)		
200-TP-6	241-T Tank Farm (16 Units)	Single-Shell Tank	
	241-T-151	Diversion Box	
	241-T-152	Diversion Box	
	241-T-153	Diversion Box	
	241-T-252	Diversion Box	
	241-T-301	Catch Tank	
	241-T-302	Catch Tank	
	241-TR-152	Diversion Box	
	241-TR-153	Diversion Box	
	UN-200-W-62	Unplanned Release	
	UN-200-W-64	Unplanned Release	
	UN-200-W-97	Unplanned Release	
200-UP-3	241-U Tank Farm (16 Units)	Single-Shell Tank	
	241-U-151	Diversion Box	
	241-U-152	Diversion Box	
	241-U-153	Diversion Box	
	241-U-252	Diversion Box	
	241-U-301	Catch Tank	
	241-U-A	Diversion Box	
	241-U-B	Diversion Box	
	241-U-C	Diversion Box	
	241-U-D	Diversion Box	
	241-UR-151	Diversion Box	
•	241-UR-152	Diversion Box	
	241-UR-153	Diversion Box	
	241-UR-154	Diversion Box	
	244-UR	Receiving Vault	
	2607-WUT	Septic Tank	
	UN-200-W-6	Unplanned Release	
	UN-200-W-71	Unplanned Release	

APPENDIX B

Listing of Treatment, Storage, and Disposal Groups/Units. (sheet 11 of 17)

Treatme	nt, Storage, and Disposal		Planned Action	
Group Number Group/Units		Operable Unit (if applicable)		
T-2-5***	241-Z Treatment Tank (D-5)		· · · · · · · · · · · · · · · · · · ·	Treatment
T-2-6	242-A Evaporator			Treatment
S-2-5	2727-S Nonradioactive Dangerous Waste Storage Facility		Х	

APPENDIX B
Listing of Treatment, Storage, and Disposal Groups/Units. (sheet 12 of 17)

Treatme	ent, Storage, and Disposal		Planned Action		
Group Number	Group/Units	Operable Unit (if applicable)	Closure*	Operating Permit	
TS-2-2	Hexone Storage and Treatment		Х		
	276-S-141 Tank 276-S-142 Tank Railcar Storage Tanks (Future) Distillation System (Future) Incinerator (Future)				
T-3-1	300 Area Solvent Evaporator		X		
TS-3-1	300 Area Waste Acid System		Х		
	313 Building Waste Acid Neutralization Tank 313 Building Centrifuge 313 Filter Press 333 Building Chromium Treatment Tanks (2 tanks) ***311 Neutralized Waste Tanks (2 tanks) 334-A Waste Acid Storage Tank (2 tanks)				

APPENDIX B
Listing of Treatment, Storage, and Disposal Groups/Units. (sheet 13 of 17)

Treatme	ent, Storage, and Disposal		Planned Action		
Group Number	Group/Units	Operable Unit (if applicable)	Closure*	Operating Permit	
S-3-1	303-K Contaminated Waste Storage Facility		Χ		
T-3-2	303-M Uranium Oxide Facility	300-FF-2	X	·	
TS-3-2	304 Concretion Facility and Storage Area		X		
	304 Concretion Facility 304 Storage Area			- 178	
S-3-2	305-B Storage Facility			Storage	
D-3-1	300 Area Process Trenches (316-5)	300-FF-1	X		
T-3-3**	324 Sodium Removal Pilot Plant			Treatment	
T-3-4 325 Waste Treatment Facility		Treatment			

APPENDIX B

Listing of Treatment, Storage, and Disposal Groups/Units. (sheet 14 of 17)

Treatme	ent, Storage, and Disposal		Planned Action		
Group Number	Group/Units	Operable Unit (if applicable)	Closure*	Operating Permit	
TS-3-3	3718-F Alkali Metal Treatment and Storage Facility		X		
	3718-F Burn Shed 3718-F Treatment Tank #1 3718-F Treatment Tank #2 3718-F Alkali Metal Treatment Facility Storage				
T-4-1	400 Area Maintenance and Storage Facility (MASF)			Treatment	
S-4-1	4843 FFTF Sodium Storage Facility		X	and the second	
D-6-1	600 Area Nonradioactive Dangerous Waste Landfill	200-IU-3	X		
S-6-1	616 Nonradioactive Dangerous Waste Storage Facility			Storage	
TS-2-3	B Plant				
	B Plant Waste Concentrator B Plant Settle and Decant Tank B Plant Filter B Plant Radioactive Organic Waste Solvent Tank #1			Treatment Treatment Treatment Storage	

APPENDIX B

Listing of Treatment, Storage, and Disposal Groups/Units. (sheet 15 of 17)

Treatme	ent, Storage, and Disposal		Planned Action		
Group Number	Group/Units	Operable Unit (if applicable)	Closure*	Operating Permit	
	B Plant Radioactive Organic Waste Solvent Tank #2			Storage	
	B Plant Radioactive Organic Waste Solvent Tank #3			Storage	
	B Plant Radioactive Organic Waste Solvent Tank #4			Storage	
	B Plant Radioactive Organic Waste Solvent Tank #5			Storage	
	B Plant Radioactive Organic Waste Solvent Tank #6			Storage	
	B Plant Radioactive Organic Waste Solvent Tank #7			Storage	
	B Plant Storage Area B Plant Waste Pile			Storage Storage	
T-X-1	Biological Treatment Test Facilities			Treatment	
TD-2-1	Grout				
	Grout Treatment Facility Grout Treatment Facility Landfill			Treatment Treatment/Landfill	
TS-2-4	Hanford Central Waste Complex				
	Waste Receiving and Processing (WRAP) Facility (Future)			Treatment	
	Radioactive Mixed Waste Storage Facility			Storage	

Treatment, Storage, and Disposal			Planned Action	
Group Number	Group/Units	Operable Unit (if applicable)	Closure*	Operating Permit
TS-2-5	Hanford Waste Vitrification Plant (HWVP) (Future)			Treatment/Storage
T-X-2	Physical and Chemical Treatment Test Facilities		X	
TS-2-6	Purex			
	*** Neutralization Tank E-5  *** E-F11 Concentrator  *** Neutralization Tank G-7  Ammonia Distillate Treatment System  (Future Tank)			Treatment Treatment Treatment Treatment
	*** Neutralization Tank F-18  *** Neutralization Tank F-15  *** Neutralization Tank F-16  *** Neutralization Tank U3  *** Neutralization Tank U4  Purex Waste Piles			Treatment Treatment Treatment Treatment Treatment Storage
TS-3-4	Simulated High-Level Waste Slurry Treatment and Storage		X (or)	Treatment/Storage

Listing of Treatment, Storage, and Disposal Groups/Units. (sheet 17 of 17)

APPENDIX B

Treatment, Storage, and Disposal			Planned Action		
Group Number	Group/Units	Operable Unit (if applicable)	Closure*	Operating Permit	
T-2-7***	T Plant Treatment Tank			Treatment	
T-X-3	Thermal Treatment Test Facilities		X		
T-11-1	1100 Area Hanford Patrol Academy Demolition Area		X		

<sup>\*</sup>Post-Closure Permit required if closed as a land disposal unit in accordance with Subsection 6.3.2.

\*\*Part A permit application may be withdrawn because unit(s) never handled or never will handle hazardous waste.

<sup>\*\*\*</sup>Part A permit application may be withdrawn due to reclassification of unit(s) as treatment by generator.

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APPENDIX C
Prioritized Listing of Operable Units. (sheet 1 of 27)

_						
	iority	Operable Unit	<u>Title of Units</u>	<u>Unit Type</u>	Lead Regulatory <u>Agency</u>	Unit <u>Category</u>
1		1100-EM-1	1100-1 1100-2 1100-3 Horn Rapids Disposal 1100-4 UN-1100-5	Acid Pit Solvent Pit Antifreeze Pit Landfill Antifreeze Tank Unplanned Release	EPA	CPP CPP CPP CPP CPP
			UN-1100-6	Unplanned Release		CPP
2		300-FF-1 (GW addressed by 300-FF-5)	300 Ash Pits 300 Filter Backwash Pond	Pit Pond	EPA	CPP CPP
		2, 200 3,	300 Retired Filter Backwash	Pond		CPP
			300 Area Sanitary Sewer System	Sewer		CPP
			316-1 316-2 316-5 (300 Area Process	Pond Pond Trench		CPP CPP TSD (D-3-1)
		•	Trenches) 618-12 618-4 628-4 UN-300-FF-1	Burial Ground Burial Ground Burn Pit Unplanned Release		CPP CPP CPP CPP
2A		300-FF-5 (GW 0.U.)	300-FF-1 300-FF-2	Source O.U. Source O.U.	EPA	CPP CPP
3		200-BP-1 (Source O.U.)	216-B-43 216-B-44 216-B-45 216-B-46 216-B-47 216-B-48 216-B-50 216-B-57 216-B-61 UN-200-E-89 UN-200-E-110 UN-200-E-63 UN-200-E-9	Crib Crib Crib Crib Crib Crib Crib Crib	EPA	CPP

APPENDIX C
Prioritized Listing of Operable Units. (sheet 2 of 27)

Priority	Operable Unit	Title of Units	<u>Unit Type</u>	Lead Regulatory Agency	Unit Categor
4	100-HR-1 (GW addressed by 100-HR-3)	116-H-1 116-H-2 116-H-3 116-H-4 116-H-5 116-H-6 (183-H) 116-H-7 116-H-9 126-H-2	Trench Trench French Drain Crib Outfall Structure Retention Basin Retention Basin Crib Demolition and Inert Landfill	Ecology	CPP CPP CPP CPP TSD (T-1-4) CPP CPP CPP
		132-H-1 132-H-3 1607-H2 1607-H3	Stack Pump Station Septic Tank Septic Tank		CPP CPP CPP
4A	100-HR-3 (GW 0.U.)	100-HR-1 100-HR-2 100-DR-1 100-DR-2 100-DR-3	Source O.U. Source O.U. Source O.U. Source O.U. Source O.U.	Ecology	RPP RPP RPP RPP RPP
5	100-DR-1 (GW addressed by 100-HR-3)	116-D-1A 116-D-1B 116-D-2 116-D-3 116-D-4 116-D-5 116-D-6 116-D-7 116-D-9 116-D-10 116-DR-1 116-DR-2 116-DR-2 116-DR-5 116-DR-9 120-D-1 120-D-2 126-D-1	Trench Trench Crib French Drain French Drain Outfall Structure French Drain Retention Basin Crib Pit Trench Trench Trench Outfall Structure Retention Basin Ponds Storage Tank Ash Pit	Ecology	CPP
		126-D-2  126-D-3 128-D-2 130-D-1 132-D-1 132-D-2 132-D-3 1607-D2 1607-D4 1607-D5 628-3	Demolition and Inert Landfill Brine Pit Burn Pit Storage Tank Building Building Pump Station Septic Tank Septic Tank Septic Tank Burn Pit		CPP CPP CPP CPP CPP CPP CPP CPP CPP

APPENDIX C

Prioritized Listing of Operable Units. (sheet 3 of 27)

riority	Operable Unit	<u>Title of Units</u>	Unit Type	Lead Regulatory <u>Agency</u>	Unit <u>Category</u>
c	100-BC-1	116-B-1	Trench	EPA	CPP
6	(GW addressed		Trench	El A	CPP
		116-B-3	Crib		CPP
	by 100-BC-5)	116-B-4	French Drain		CPP
		116-B-5	Crib		CPP
		116-B-6A	Crib		CPP
		116-B-6B	Crib		CPP
		116-B-7	Outfall Structure		CPP
		116-B-9	French Drain		CPP
			French Drain		CPP
		116-B-10	Retention Basin		CPP
		116-B-11	Crib		CPP
		116-B-12	Trench		CPP
		116-B-13	Trench		CPP
		116-8-14	Pit		CPP
		116-B-15 116-B-16	Storage Tank		CPP
			Trench		CPP
•		116-C-1	Retention Basin		CPP
		116-C-5	Burial Ground		CPP
		118-B-5	Burial Ground		CPP
		118-B-7	Pit		CPP
		118-B-10			CPP
		120-B-1	Sump Ash Pit		CPP
		126-B-1	Demolition and		CPP
		126-B-2	Inert Landfill		CFF
		126 B 2	Demolition and		CPP
		126-B-3	Inert Landfill		CIT
		126 B 4	Brine Pit		CPP
		126-B-4	Burning Pit		CPP
•		128-B-1	Burning Pit		CPP
		128-B-2			CPP
		128-B-3	Burning Pit Burning Pit		CPP
		128-C-1	Building		CPP
		132-B-1	Stack		CPP
		132-B-3			CPP
		132-B-4	Building Building		CPP
		132-B-5	Outfall Structure		CPP
		132-B-6 132-C-2	Outfall Structure		CPP
		1607-B1	Septic Tank	•	CPP
		1607-B2	Septic Tank		CPP
		1607-B2 1607-B3	Septic Tank		CPP
		1607-B3	Septic Tank		CPP
		1607-B5	Septic Tank		CPP
	·	1607-B5 1607-B6	Septic Tank		CPP
		1607-B6 1607-B7	Septic Tank		CPP
			•	FD4	
6A	100-BC-5	100-BC-1	Source O.U.	EPA	CPP
	(GW O.U.)	100-BC-2	Source O.U.		CPP
		100-BC-3	Source O.U.		CPP
		100-BC-4	Source O.U.		CPP

APPENDIX C
Prioritized Listing of Operable Units. (sheet 4 of 27)

Priority	Operable Unit	Title of Units	<u>Unit Type</u>	Lead Regulatory Agency	Unit Catego
7	100-KR-1 (GW addressed by 100-KR-4)	116-KE-4 116-KW-3 116-K-1 116-K-2 116-K-3	Retention Basin Retention Basin Crib Trench Outfall Structure	EPA	CPP CPP CPP CPP
7A	100-KR-4 (GW 0.U.)	100-KR-1 100-KR-2 100-KR-3	Source O.U. Source O.U. Source O.U.	EPA	CPP CPP CPP
8	100-NR-1	116-N-1 (1301-N) 116-N-2 116-N-3 (1325-N) 116-N-4 118-N-1	Crib Storage Tank Crib Septic Tank Silos	Ecology	TSD (D-1-2) RPP TSD (D-1-2)
		120-N-1 (1324-N) 120-N-2 (1324-NA) 120-N-3	Pond Neutralization Unit French Drain		TSD (T-1-2) TSD (T-1-2) RPP
		120-N-5 120-N-6 120-N-7	Neutralization Unit French Drain French Drain		RPP RPP RPP
		120-N-8 124-N-1 124-N-2	French Drain Septic Tank Septic Tank		RPP RPP RPP
		124-N-3 124-N-4	Septic Tank Septic Tank		RPP
	,	124-N-5 124-N-6 124-N-7	Septic Tank Septic Tank Septic Tank		RPP RPP RPP
		124-N-8 124-N-9 124-N-10	Septic Tank Septic Tank Sewer		RPP RPP RPP
		128-N-1 130-N-1	Burning Pit Pond		RPP RPP
		UN-100-N-1 UN-100-N-2 UN-100-N-3	Unplanned Release Unplanned Release Unplanned Release		RPP
		UN-100-N-4 UN-100-N-5	Unplanned Release Unplanned Release		RPP RPP
		UN-100-N-6 UN-100-N-7 UN-100-N-8	Unplanned Release Unplanned Release Unplanned Release		RPP
		UN-100-N-9 UN-100-N-10	Unplanned Release Unplanned Release		RPP
		UN-100-N-11 UN-100-N-12 UN-100-N-13	Unplanned Release Unplanned Release Unplanned Release		RPP RPP

APPENDIX C

Prioritized Listing of Operable Units. (sheet 5 of 27)

_	<u>'iority</u>	Operable Unit	Title of Units	<u>Unit Type</u>	Lead Regulatory Agency	Unit Category
		100-NR-1 (continued)	UN-100-N-14 UN-100-N-15 UN-100-N-17 UN-100-N-19 UN-100-N-20 UN-100-N-21 UN-100-N-22 UN-100-N-23 UN-100-N-24 UN-100-N-25 UN-100-N-26 UN-100-N-29 UN-100-N-30 UN-100-N-31 UN-100-N-32	Unplanned Release	Ecology	RPP RPP RPP RPP RPP RPP RPP RPP RPP RPP
			UN-100-N-33 UN-100-N-34 UN-100-N-35 UN-600-N-17 HGP Transformer Yard HGP Tile Field HGP Settling pond HGP Outfall	Unplanned Release Unplanned Release Unplanned Release Unplanned Release		RPP RPP
			Maintenance Garage French Drain HGP Disposal and Storage Area 1701-NE Septic Tank 1703-N Septic Tank 600-32 Dumping Area HGP Diesel Oil Storage Tank			
9	)	100-NR-2 (GW 0.U.)	100-NR-1	Source O.U.	Ecology	RPP

APPENDIX C
Prioritized Listing of Operable Units. (sheet 6 of 27)

Priority	Operable Unit	Title of Units	Unit Type	Lead Regulatory Agency	Unit Catego
10	100-FR-1	116-F-1	Trench	EPA	CPP
	3,000	116-F-2	Trench		CPP
		116-F-3	Trench		CPP
		116-F-4	Crib		CPP
		116-F-5	Crib		CPP
		116-F-6	Trench		CPP
		116-F-7	French Drain		CPP
		116-F-8	Outfall Structure		CPP
		116-F-9	Trench		CPP
		116-F-10	French Drain		CPP
		116-F-11	French Drain		CPP
		116-F-12	French Drain		CPP
		116-F-13	French Drain		CPP
		116-F-14	Retention Basin		CPP
		116-F-15	Crib		CPP
		116-F-16	Outfall		CPP
		126-F-2	Demolition and Inert Landfill		CPP
		128-F-2	Burning Pit		CPP
		132-F-3	Building		CPP
		132-F-4	Stack		CPP
		132-F-5	Building		CPP
		132-F-6	Pump Station		CPP
		1607-F2	Septic Tank		CPP
		1607-F3	Septic Tank		CPP
		1607-F4	Septic Tank		CPP
		1607-F5	Septic Tank		CPP
		1607-F6	Septic Tank		CPP
		UN-100-F-1	Unplanned Release		CPP
10A	100-FR-3	100-FR-1	Source O.U.	EPA	CPP
	(GW 0.U.)	100-FR-2	Source O.U.		CPP

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Prioritized Listing of Operable Units. (sheet 7 of 27)

	· ·	-			
<u>·iority</u>	Operable Unit	Title of Units	<u>Unit Type</u>	Lead Regulatory <u>Agency</u>	Unit <u>Category</u>
11	200-UP-2	200-W Powerhouse Pond	Pond	Ecology	CPP
11	200 01 2	200 West Constr. Surface Laydown	Burial Ground	2001033	CPP
		Area			
		207-U	Retention Basin		CPP
		216-U-1&2	Crib		CPP
		216-U-3	French Drain		CPP
		216-U-4	Reverse Well		CPP
		216-U-4A	French Drain		CPP
		216-U-4B	French Drain		CPP
		216-U-5	Trench		CPP
		216-U-6	Trench		CPP
		216-U-7	French Drain		CPP
		216-U-8	Crib		CPP
		216-U <b>-</b> 9	Ditch		
		216-U-10	Pond		
		216-U-11	Ditch		
		216-U-12	Crib		TSD (D-2-8)
		216-U-13	Trench		
		216-U-14	Ditch		CPP
		216-U-15	Trench		CPP
		216-U-16	Crib		CPP
		216-U-17	Crib		CPP
		216-Z-11	Ditch		
		216-Z-19	Ditch		
		216-Z-1D	Ditch		
		216-Z-20	Crib		
		241-U-361	Settling Tank		CPP
		241-UX-154	Diversion Box		CPP
		241-UX-302A	Catch Tank		CPP
		241-WR Vault	Vault		CPP
		270-W	Neutralization Tank		CPP
		2607-W5	Septic Tank		CPP
		2607-W7 2607-W9	Septic Tank Septic Tank		CPP
		UN-200-W-1.9	Unplanned Release		CPP
		UN-200-W-33	Unplanned Release		CPP
		UN-200-W-39	Unplanned Release		CPP

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Prioritized Listing of Operable Units. (sheet 8 of 27)

Priority	Operable Unit	<u>Title of Units</u>	<u>Unit Type</u>	Lead Regulatory <u>Agency</u>	Unit Categor
	200-UP-2 (Continued)	UN-200-W-46 UN-200-W-48 UN-200-W-55 UN-200-W-60 UN-200-W-78 UN-200-W-86 UN-200-W-101 UN-200-W-117 UN-200-W-118 UN-200-W-125 UN-200-W-161 U Plant Burning Pit	Unplanned Release		CPP
12	100-BC-2 (GW addressed by 100-BC-5)	116-C-2A 116-C-2B 116-C-2C 116-C-3 116-C-6 118-B-1 118-B-2 118-B-3 118-B-4 118-B-6 118-C-1 118-C-2 132-C-1 132-C-3 1607-B8 1607-B9 1607-B10 1607-B11	Crib Pump Station Sand Filter Storage Tank Pit Burial Ground Burial Ground Burial Ground Burial Ground Burial Ground Storage Tank Stack Building Septic Tank Septic Tank Septic Tank Septic Tank	EPA	CPP

APPENDIX C
Prioritized Listing of Operable Units. (sheet 9 of 27)

				Load	
riority	Operable Unit	<u>Title of Units</u>	<u>Unit Type</u>	Lead Regulatory <u>Agency</u>	Unit <u>Category</u>
13	200-BP-5	200-BP-1	Source O.U.	ΕPA	CPP
10	(GW O.U.)	200-BP-3	Source O.U.	LIA	CPP
	(un 0.0.)	200-BP-4	Source O.U.		CPP
		200-BP-6	Source O.U.		CPP
		200-BP-7	Source O.U.		CPP
		200-BP-8	Source O.U.		CPP
		200-BP-9	Source O.U.		CPP
		200-BP-10	Source O.U.		CPP
		200-BP-10 200-BP-11	Source O.U.		CPP
			Source o.o.		CFF
		(North Part) 200-NO-1	Source O.U.		CPP
		200-NO-1 200-P0-2	Source O.U.		CPP
			Source 0.0.		CFF
		(North Part) 200-P0-3	Source O.U.		CPP
		(North Part)	Source O.O.		CFF
		200-P0-5	Source O.U.		CPP
		(North Part)	Source o.o.		CFF
		200-SO-1	Source O.U.		CPP
		200-30-1 200-IU-6	Source O.U.		CPP
14	100-DR-2	116-DR-3	Trench	Ecology	RPP
	(GW addressed	116-DR-4	Crib		RPP
	by 100-HR-3)	116-DR-6	Trench		RPP
		116-DR-7	Crib		RPP
		116-DR-8	Crib		RPP
		118-D-5	Burial Ground		RPP
		126-DR-1	Tank Pit		RPP
		132-DR-1	Pump Station		RPP
		1607-D3	Septic Tank		RPP
		116-D-8	Storage Pad		RPP
			Sodium Dichromate		
			Tanker Off-Loading		
			Facility		
		118-DR-2	Reactor Building		
		122-DR-1	Fire Facility		
		132-DR-2	Exhaust Stack		
		116-DR-10	Pit		
		118-D-1	Burial Ground		
		118-D-2	Burial Ground		
		118-D-3	Burial Ground		
		118-D-4	Burial Ground		
		118-DR-1	Burial Ground		
		128-D-1	Burning Pit		
		1607-D1	Septic Tank		

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Prioritized Listing of Operable Units. (sheet 10 of 27)

Priority	Operable Unit	<u>Title of Units</u>	<u>Unit Type</u>	Lead Regulatory <u>Agency</u>	Unit Categor
16	100-KR-2 (GW addressed by 100-KR-4)	120-KE-1 120-KW-2 120-KE-3 120-KE-2 120-KW-5 120-KE-6 120-KE-9 120-KW-1 120-KW-7	French Drain French Drain Trench French Drain Storage Tank Storage Tank Brine Pit French Drain Brine Pit	EPA	CPP CPP CPP CPP CPP CPP CPP CPP
		128-K-1 128-K-2 130-K-3 1607-K1 1607-K2 1607-K3	Burning Pit Burning Pit Storage Tank Septic Tank Septic Tank Septic Tank		CPP CPP CPP CPP CPP
		1607-K5 130-KE-1 130-KW-1 116-KE-1 116-KE-2 116-KE-3	Septic Tank Storage Tank Storage Tank Crib Crib Reverse Well		CPP CPP CPP CPP CPP
		116-KW-1 116-KW-2 118-K-1 120-KE-8 120-KW-6 126-K-1	Crib Reverse Well Burial Ground Brine Pit Brine Pit Demolition and		CPP CPP CPP CPP CPP
		1607-K4 1607-K6 130-KE-2 130-KW-2 130-K-1 130-K-2 UN-100-K-1	Inert Landfill Septic Tank Septic Tank Storage Tank Storage Tank Storage Tank Storage Tank Unplanned Release		CPP CPP CPP CPP CPP CPP
17	200-BP-4 (Source 0.U.)	216-B-11A&B 216-B-51 216-B-7A&B 216-B-8TF	Reverse Well French Drain Crib Crib	Ecology	

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Prioritized Listing of Operable Units. (sheet 11 of 27)

	71 101	Totzed ciscing of open	able offics. (sheet 1)		
ciority	Operable Unit	Title of Units	<u>Unit Type</u>	Lead Regulatory <u>Agency</u>	Unit <u>Category</u>
18	200-BP-11 (Source O.U.)	216-A-29 216-B-2-1 216-B-2-3 216-B-63 216-B-3 (B Pond) 216-B-3-1 216-B-3-2 216-B-3-3 216-B-3A 216-B-3B 216-B-3B 216-B-3C 216-E-28 UN-200-E-14 UN-200-E-92	Ditch Ditch Ditch Ditch Trench Pond Ditch Ditch Ditch Pond Pond Pond Pond Pond Pond Pond Pond	Ecology	TSD (D-2-3)
19	200-P0-2 (Source 0.U.)	216-A-2 216-A-3 216-A-4 216-A-5 216-A-9 216-A-10 216-A-11 216-A-13 216-A-13 216-A-15 216-A-21 216-A-22 216-A-26 216-A-26 216-A-27 216-A-28 216-A-31 216-A-31 216-A-35 216-A-35 216-A-36 216-A-36 216-A-36B 216-A-36B 216-A-40 216-A-40 216-A-41 216-A-45 218-E-1 218-E-1 218-E-13 241-A-151 241-A-302A 299-E24-111	Crib Crib Crib Crib Crib Crib Crib French Drain Crib French Drain Crib French Drain Crib Crib French Drain Crib Crib Crib Crib Crib Crib Crib Crib	Ecology	RPP TSD (D-2-2) RPP RPP RPP RPP RPP RPP RPP RPP RPP RP

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Prioritized Listing of Operable Units. (sheet 12 of 27)

Priority	Operable Unit	Title of Units	<u>Unit Type</u>	Lead Regulatory <u>Agency</u>	Unit <u>Categor</u>
	200-PO-2 (continued)	2607-E6 2607-EA UN-200-E-10 UN-200-E-11 UN-200-E-12 UN-200-E-13 UN-200-E-15	Septic Tank Septic Tank Unplanned Release		RPP RPP RPP RPP RPP RPP
		UN-200-E-19 UN-200-E-20 UN-200-E-22	Unplanned Release Unplanned Release Unplanned Release		RPP
		UN-200-E-25 UN-200-E-26 UN-200-E-28 UN-200-E-31 UN-200-E-33 UN-200-E-35 UN-200-E-39	Unplanned Release		RPP RPP RPP RPP RPP
		UN-200-E-40 UN-200-E-49 UN-200-E-58 UN-200-E-60 UN-200-E-65 UN-200-E-88 UN-200-E-96 UN-200-E-97 UN-200-E-114	Unplanned Release		RPP RPP RPP RPP RPP RPP
		UN-200-E-117 UN-200-E-142	Unplanned Release Unplanned Release		RPP
20	200-P0-5 (Source O.U.)	207-A 216-A-1 216-A-7 216-A-8 216-A-16 216-A-17 216-A-18 216-A-19 216-A-20 216-A-23A 216-A-23B 216-A-24 216-A-34 216-A-524 241-A-302B 2607-EC UN-200-E-56 UN-200-E-67	Retention Basin Crib Crib Crib French Drain French Drain Trench Trench Trench French Drain French Drain Crib Ditch Control Structure Catch Tank Septic Tank Unplanned Release Unplanned Release	Ecology	RPP RPP RPP RPP RPP RPP RPP RPP RPP RPP
A	200-UP-1 (GW 0.U.)	200-UP-2	Source O.U.	Ecology	

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Prioritized Listing of Operable Units. (sheet 13 of 27)

riority	Operable Unit	<u>Title of Units</u>	<u>Unit Type</u>	Lead Regulatory Agency	Unit <u>Category</u>
А	200-ZP-1 (GW 0.U.)	200-ZP-2 200-TP-2 200-TP-4	Source O.U. Source O.U. Source O.U.	EPA	CPP
В	100-FR-2	118-F-1 118-F-2 118-F-3 118-F-4 118-F-5 118-F-6 118-F-7 118-F-9 120-F-1 126-F-1 128-F-1 128-F-3 1607-F1	Burial Ground Trench Ash Pit Burning Pit Septic Tank	EPA	
В	100-HR-2 (GW addressed by 100-HR-3)	118-H-1 118-H-2 118-H-3 118-H-4 118-H-5 126-H-1 128-H-1 128-H-2 128-H-3 132-H-2 1607-H1 1607-H4	Burial Ground Burial Ground Burial Ground Burial Ground Burial Ground Ash Pit Burning Pit Burning Pit Burning Pit Burliding Septic Tank Septic Tank	Ecology	RPP RPP RPP RPP RPP RPP RPP RPP RPP RPP
В	100-IU-1	Army Munitions Burial Site Riverland Railroad Pit Car Wash Pit	Burial Ground	Ecology	

APPENDIX C
Prioritized Listing of Operable Units. (sheet 14 of 27)

Priority	Operable Unit	Title of Units	Unit Type	Lead Regulatory <u>Agency</u>	Unit Categor
В	200-BP-2	216-B-14	Crib	Ecology	
	(Source O.U.)	216-B-15	Crib		
		216-B-16	Crib		
		216-B-17	Crib		
		216-B-18	Crib		
		216-B-19	Crib		
		216-B-20	Trench		
		216-B-21	Trench		
		216-B-22	Trench		
		216-B-23	Trench		
		216-B-24	Trench		
		216-B-25	Trench		
		216-B-26	Trench		
		216-B-27	Trench		
		216-B-28	Trench		
		216-B-29	Trench		
		216-B-30	Trench		
		216-B-31	Trench		
		216-B-32	Trench		
		216-B-33	Trench		
		216-B-34	Trench		
		216-B-52	Trench		
		216-B-53A	Trench		
		216-B-53B	Trench		
		216-B-54	Trench		
		216-B-58	Trench		
		UN-200-E-83	Unplanned Release		
	200-P0-1	200-BP-2	Source O.U.	Ecology	CPP
	(GW O.U.)	200-BP-11	Source O.U.		CPP
	RPP	(South Part)			
		200-P0-2	Source O.U.		CPP
		(South Part)			
		200-P0-3	Source O.U.		CPP
		(South Part)			
		200-P0-4	Source O.U.		RPP
		200-P0-5	Source O.U.		RPP
		(South Part)			
		200-SS-1	Source O.U.		CPP
В .	200-P0-4	216-A-6	Crib	Ecology	RPP
	(Source O.U.)	216-A-30	Crib	Leorogy	RPP
	(3001 CE 0.0.)	216-A-37-1	Crib		RPP
		216-A-37-2	Crib		RPP
		216-A-42	Retention Basin		RPP
		2607-EL	Septic Tank		RPP
		EOO! - LL	Septite Tallk		IM I

APPENDIX C
Prioritized Listing of Operable Units. (sheet 15 of 27)

<u>iority</u>	Operable Unit	<u>Title of Units</u>	<u>Unit Type</u>	Lead Regulatory <u>Agency</u>	Unit <u>Category</u>
В	200-S0-1 (Source O.U.)	200-E Power Ditch 216-C-1 216-C-2 216-C-3 216-C-4 216-C-5 216-C-6 216-C-7 216-C-9 216-C-10 218-C-9 241-CX-70 241-CX-71 241-CX-72 2607-E5 2607-E5 2607-E7A Hot Semi-Works Valve Pit UN-200-E-36 UN-200-E-37 UN-200-E-98 UN-200-E-141	House Ditch Crib Reverse Well Crib Crib Crib Crib Crib Pond Crib Burial Ground Storage Tank Neutralization Tank Storage Tank Septic Tank Septic Tank Septic Tank Valve Pit Unplanned Release Unplanned Release Unplanned Release Unplanned Release	Ecology	RPP RPP RPP RPP RPP RPP RPP RPP RPP RPP
	200-TP-1	216-T-5 216-T-7TF 216-T-21 216-T-22 216-T-23 216-T-24 216-T-25 216-T-32 216-T-36	Trench Crib Trench Trench Trench Trench Trench Crib Crib Crib	EPA	KFF
	200-TP-2	2607-WT 216-T-13 216-T-18 216-T-19TF 216-T-20 216-T-26 216-T-27 216-T-28 216-T-31 241-TX-152 241-TX-155 241-TX-302B 241-TX-302BR UN-200-W-14 UN-200-W-29 UN-200-W-99 UN-200-W-113 UN-200-W-135	Septic Tank Trench Crib Crib Trench Crib Crib Crib Crib French Drain Diversion Box Diversion Box Catch Tank Catch Tank Unplanned Release Unplanned Release Unplanned Release Unplanned Release Unplanned Release	EPA	

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Prioritized Listing of Operable Units. (sheet 16 of 27)

B   200-TP-4   216-T-1	Priority	Operable Unit	Title of Units	<u>Unit Type</u>	Lead Regulatory Agency	Unit Categoi,
216-T-2   Reverse Well   216-T-3   Reverse Well   216-T-8   Crib   216-T-9   Trench   216-T-10   Trench   216-T-11   Trench   216-T-29   Crib   216-T-33   Crib   216-T-34   Crib   216-T-35   Crib   218-W-8   Burial Ground   241-T-361   Settling Tank   241-TX-154   Diversion Box   241-TX-302C   Catch Tank   240-TX-302C   Catch Tank   2607-W4   Septic Tank   UN-200-W-2   Unplanned Release   UN-200-W-3   Unplanned Release   UN-200-W-2   Unplanned Release   UN-200-W-2   Unplanned Release   UN-200-W-3   Unplanned Release   UN-200-W-27   Unplanned Release   UN-200-W-58   Unplanned Release   UN-200-W-65   Unplanned Release   UN-200-W-67   Unplanned Release   UN-200-W-67   Unplanned Release   UN-200-W-77   Unplanned Release   UN-200-W-77   Unplanned Release   UN-200-W-77   Unplanned Release   UN-200-W-77   Unplanned Release   UN-200-W-78   Unplanned Release   UN-200-W-79   Unplanned Release   UN-200-W-77   Unplanned Release   UN-200-W-85   Unplanned Release   Un-200-W-98   Unplanned Release   Un-200-W-99   Unplanned Release   Unplanned	В	200-TP-4	216-T-1	Ditch	EPA	
216-T-3				Reverse Well		
216-T-8				Reverse Well		
216-T-9						
216-T-10				Trench		
216-T-11				Trench		
216-T-29				Trench		
216-T-33				Crib		
216-T-34				Crib		
216-T-35				Crib		
241-T361 Settling Tank 241-TX-154 Diversion Box 241-TX-302C Catch Tank 2607-W3 Septic Tank 2607-W4 Septic Tank UN-200-W-2 Unplanned Release UN-200-W-3 Unplanned Release UN-200-W-4 Unplanned Release UN-200-W-8 Unplanned Release UN-200-W-8 Unplanned Release UN-200-W-38 Unplanned Release UN-200-W-38 Unplanned Release UN-200-W-58 Unplanned Release UN-200-W-65 Unplanned Release UN-200-W-67 Unplanned Release UN-200-W-73 Unplanned Release UN-200-W-73 Unplanned Release UN-200-W-75 Unplanned Release UN-200-W-85 Unplanned Release UN-200-W-98 Unplanned Release UN-200-W-98 Unplanned Release UN-200-W-98 Unplanned Release UN-200-W-98 Unplanned Release UN-200-W-102 Unplanned Release				Crib		
241-TX-154 241-TX-302C Catch Tank 2607-W3 Septic Tank UN-200-W-2 Unplanned Release UN-200-W-3 UN-200-W-8 UN-200-W-8 UN-200-W-38 UN-200-W-38 UN-200-W-38 UN-200-W-58 UN-200-W-58 UN-200-W-67 UN-200-W-67 UN-200-W-67 UN-200-W-77 UN-200-W-77 UN-200-W-77 UN-200-W-85 UN-200-W-85 UN-200-W-85 UN-200-W-98 UN-200-W-98 UN-200-W-98 UN-200-W-98 UN-200-W-102 Unplanned Release UN-200-W-102 Unplanned Release UN-200-W-98 Unplanned Release UN-200-W-102 Unplanned Release UN-200-W-102 Unplanned Release UN-200-W-102 Unplanned Release			218-W-8	Burial Ground		
241-TX-302C Catch Tank 2607-W3 Septic Tank 2607-W4 Septic Tank UN-200-W-2 Unplanned Release UN-200-W-3 Unplanned Release UN-200-W-4 Unplanned Release UN-200-W-8 Unplanned Release UN-200-W-27 Unplanned Release UN-200-W-38 Unplanned Release UN-200-W-58 Unplanned Release UN-200-W-65 Unplanned Release UN-200-W-67 Unplanned Release UN-200-W-67 Unplanned Release UN-200-W-73 Unplanned Release UN-200-W-74 Unplanned Release UN-200-W-75 Unplanned Release UN-200-W-76 Unplanned Release UN-200-W-98 Unplanned Release UN-200-W-98 Unplanned Release UN-200-W-98 Unplanned Release UN-200-W-102 Unplanned Release			241-T-361	Settling Tank		•
2607-W3 2607-W4 Septic Tank UN-200-W-2 Unplanned Release UN-200-W-3 Unplanned Release UN-200-W-8 Unplanned Release UN-200-W-27 Unplanned Release UN-200-W-38 Unplanned Release UN-200-W-58 Unplanned Release UN-200-W-65 Unplanned Release UN-200-W-67 Unplanned Release UN-200-W-73 Unplanned Release UN-200-W-73 Unplanned Release UN-200-W-77 Unplanned Release UN-200-W-85 Unplanned Release UN-200-W-98 Unplanned Release UN-200-W-98 Unplanned Release UN-200-W-102 Unplanned Release			241-TX-154	Diversion Box		
2607-W4 Septic Tank UN-200-W-2 Unplanned Release UN-200-W-3 Unplanned Release UN-200-W-4 Unplanned Release UN-200-W-8 Unplanned Release UN-200-W-27 Unplanned Release UN-200-W-38 Unplanned Release UN-200-W-58 Unplanned Release UN-200-W-65 Unplanned Release UN-200-W-67 Unplanned Release UN-200-W-73 Unplanned Release UN-200-W-77 Unplanned Release UN-200-W-77 Unplanned Release UN-200-W-85 Unplanned Release UN-200-W-98 Unplanned Release UN-200-W-98 Unplanned Release UN-200-W-102 Unplanned Release			241-TX-302C	Catch Tank		
UN-200-W-2 UN-200-W-3 UN-200-W-4 UN-200-W-8 UN-200-W-27 UN-200-W-38 UN-200-W-38 UN-200-W-58 UN-200-W-58 UN-200-W-65 UN-200-W-67 UN-200-W-67 UN-200-W-73 UN-200-W-73 UN-200-W-73 UN-200-W-73 UN-200-W-73 UN-200-W-74 UN-200-W-75 UN-200-W-75 Unplanned Release UN-200-W-85 UN-200-W-98 UN-200-W-102 Unplanned Release UN-200-W-102 Unplanned Release UN-200-W-102 Unplanned Release			2607-W3	Septic Tank		
UN-200-W-3 UN-200-W-4 UN-200-W-8 UN-200-W-27 UN-200-W-38 UN-200-W-38 UN-200-W-58 UN-200-W-58 UN-200-W-65 UN-200-W-67 UN-200-W-67 UN-200-W-73 UN-200-W-73 UN-200-W-73 UN-200-W-74 UN-200-W-75 UN-200-W-75 UN-200-W-77 Unplanned Release UN-200-W-85 UN-200-W-98 UN-200-W-98 UN-200-W-102 Unplanned Release UN-200-W-102 Unplanned Release UN-200-W-102 Unplanned Release			2607-W4	Septic Tank		
UN-200-W-8 UN-200-W-27 UN-200-W-38 UN-200-W-38 UN-200-W-58 UN-200-W-65 UN-200-W-65 UN-200-W-67 UN-200-W-73 UN-200-W-73 UN-200-W-77 UN-200-W-77 UN-200-W-85 UN-200-W-85 UN-200-W-98 UN-200-W-102 Unplanned Release UN-200-W-102 Unplanned Release UN-200-W-102 Unplanned Release UN-200-W-102 Unplanned Release			UN-200-W-2	Unplanned Release		
UN-200-W-8 UN-200-W-27 UN-200-W-38 UN-200-W-58 UN-200-W-65 UN-200-W-67 UN-200-W-73 UN-200-W-73 UN-200-W-77 UN-200-W-77 UN-200-W-85 UN-200-W-85 UN-200-W-98 UN-200-W-102 Unplanned Release UN-200-W-102 Unplanned Release UN-200-W-102 Unplanned Release UN-200-W-102 Unplanned Release			UN-200-W-3	Unplanned Release		
UN-200-W-38 Unplanned Release UN-200-W-58 Unplanned Release UN-200-W-65 Unplanned Release UN-200-W-67 Unplanned Release UN-200-W-73 Unplanned Release UN-200-W-77 Unplanned Release UN-200-W-85 Unplanned Release UN-200-W-85 Unplanned Release UN-200-W-98 Unplanned Release UN-200-W-102 Unplanned Release			UN-200-W-4	Unplanned Release		
UN-200-W-58 UN-200-W-65 UN-200-W-65 UN-200-W-67 UN-200-W-73 UN-200-W-77 UN-200-W-77 UN-200-W-85 UN-200-W-98 UN-200-W-98 UN-200-W-102 Unplanned Release UN-200-W-102 Unplanned Release Unplanned Release Unplanned Release Unplanned Release			UN-200-W-8	Unplanned Release		
UN-200-W-65 Unplanned Release UN-200-W-67 Unplanned Release UN-200-W-73 Unplanned Release UN-200-W-77 Unplanned Release UN-200-W-85 Unplanned Release UN-200-W-98 Unplanned Release UN-200-W-102 Unplanned Release			UN-200-W-27	Unplanned Release		
UN-200-W-67 Unplanned Release UN-200-W-67 Unplanned Release UN-200-W-73 Unplanned Release UN-200-W-77 Unplanned Release UN-200-W-85 Unplanned Release UN-200-W-98 Unplanned Release UN-200-W-102 Unplanned Release			UN-200-W-38	Unplanned Release		
UN-200-W-67 Unplanned Release UN-200-W-73 Unplanned Release UN-200-W-77 Unplanned Release UN-200-W-85 Unplanned Release UN-200-W-98 Unplanned Release UN-200-W-102 Unplanned Release			UN-200-W-58	Unplanned Release		
UN-200-W-73 Unplanned Release UN-200-W-77 Unplanned Release UN-200-W-85 Unplanned Release UN-200-W-98 Unplanned Release UN-200-W-102 Unplanned Release			UN-200-W-65	Unplanned Release		
UN-200-W-77 Unplanned Release UN-200-W-85 Unplanned Release UN-200-W-98 Unplanned Release UN-200-W-102 Unplanned Release			UN-200-W-67	Unplanned Release		
UN-200-W-85 Unplanned Release UN-200-W-98 Unplanned Release UN-200-W-102 Unplanned Release			UN-200-W-73	Unplanned Release		
UN-200-W-98 Unplanned Release UN-200-W-102 Unplanned Release			UN-200-W-77	Unplanned Release		
UN-200-W-102 Unplanned Release						
			UN-200-₩-98			
UN-200-W-137 Unplanned Release						
			UN-200-W-137	Unplanned Release		

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APPENDIX C

Prioritized Listing of Operable Units. (sheet 17 of 27)

10000		3			
riority	Operable Unit	Title of Units	Unit Type	Lead Regulatory <u>Agency</u>	Unit <u>Category</u>
B	200-ZP-2	207-Z 216-Z-1&2TF 216-Z-1A 216-Z-3 216-Z-4 216-Z-5 216-Z-6 216-Z-7 216-Z-8 216-Z-9 216-Z-10 216-Z-12 216-Z-13 216-Z-14 216-Z-15 216-Z-16 216-Z-17 216-Z-18 231-W-151 241-Z-8 241-Z-361 2607-Z 2607-W8 2607-W8 2607-W8 2607-Z8 UN-200-W-23 UN-200-W-75 UN-200-W-75 UN-200-W-79 UN-200-W-90 UN-200-W-91 UN-200-W-91 UN-200-W-130 UN-2:00-W-159	Retention Basin Crib Drain Field Crib Trench Crib Crib Crib French Drain Trench Reverse Well Crib French Drain French Drain French Drain French Drain Crib Trench Crib Trench Crib Trench Crib Trench Crib Trench Crib Vault Settling Tank Septic Tank Septic Tank Septic Tank Septic Tank Septic Tank Unplanned Release	EPA	
В	200-IU-3	Central Landfill Original Central Landfill NRDW Landfill 6607-1 6607-2 UN-600-12	Landfill Landfill Landfill Septic Tank Septic Tank Unplanned Release	Ecology	RPP RPP TSD (D-6-1) RPP RPP RPP

Prioritized Listing of Operable Units. (sheet 18 of 27)

Priority	Operable Unit	Title of Units	<u>Unit Type</u>	Lead Regulatory Agency	Unit Categor,
В	300-FF-2 (GW addressed	300 Vitrification	Test Treatment Facility	EPA	CPP
	by 300-FF-5)	300 Interim Filter Backwash Disposal	Neutralization Unit		CPP
		300 Retired RLWS	Sewer		CPP
		300 Area RLWS	Sewer		CPP
		303-M Oxide Facility	Treatment Facility		TSD (T-3-2)
		307	Retention Basin		CPP
		309-TW-1	Storage Tank		CPP
		309-TW-2	Storage Tank		CPP
		309-TW-3	Storage Tank		CPP
		315 Retired Drain Field	Drain Field		CPP
		316-3	Trench		CPP
		316-4	Crib		
		331 Drain field	Drain Field		
		331 Trench 1	Trench		CPP
		331 Trench 2	Trench		CPP
		335 & 336 Retired Drain Fields	Drain Fields		CPP
		618-1	Burial Ground		CPP
		618-2	Burial Ground		CPP
		618-3	Burial Ground		CPP
		618-5	Burial Ground		CPP
		618-6	Burial Ground		CPP
		618-7	Burial Ground		CPP
		618-8	Burial Ground		CPP
		618-9	Burial Ground		CPP
		618-10	Burial Ground		
		618-11	Burial Ground		
		618-13	Burial Ground		CPP
		UN-300-1	Spill		CPP CPP
		UN-300-2	Spill		CPP
		UN-300-4	Unplanned Release Unplanned Release		CPP
		UN-300-5 UN-300-7	Unplanned Release		
		UN-300-10	Unplanned Release		CPP
		UN-300-10	Spill		CPP
		UN-300-11	Unplanned Release		CPP
		UN-300-12	Unplanned Release		CPP
		UN-300-14	Spill		CPP
		UN-300-17	Unplanned Release		CPP
		UN-300-17	Unplanned Release		CPP
		UN-300-18	Unplanned Release		CPP
		UN-300-40	Unplanned Release		CPP
		UN-300-41	Spill		CPP
		UN-300-42	Unplanned Release		CPP
		UN-300-43	Unplanned Release		CPP
		UN-300-44	Unplanned Release		CPP

APPENDIX C

Prioritized Listing of Operable Units. (sheet 19 of 27)

riority	Operable Unit	<u>Title of Units</u>	<u>Unit Type</u>	Lead Regulatory <u>Agency</u>	Unit Category
	300-FF-2 (Continued)	UN-300-45 4713-B French Drain 4722-C French Drain French Drain #10 French Drain #10A French Drain #1A French Drain #1B French Drain #2 French Drain #3 French Drain #4 French Drain #5 French Drain #7 French Drain #8 French Drain #8 French Drain #9 403 French Drain #9 403 French Drain #9 403 French Drain 4721 French Drain 4700 Area Process Pond and Sewer 400 Area Retired French Drains 400 Area Retired Sanitary Pond 400 Area Retired Sanitary Pond 400 Area Retired Sanitary File Field 4831 Laydown Hazardous Staging	Unplanned Release French Drain	Agency	CPP
С	100-IU-2	UN-400-1 628-1 East White Bluffs Landfill	Unplanned Release Burning Pit Landfill	EPA	
			Landfill Burial Ground		

Prioritized Listing of Operable Units. (sheet 20 of 27)

Priority	Operable Unit	Title of Units	<u>Unit Type</u>	Lead Regulatory Agency	Unit Categor
С	100-IU-3	USBR 2,4-D Burial	Landfill	Ecology	
		Wahulke Slope NIKE Missile Base H-12C NIKE Missile "Battery B" Control Center	Test Treatment or Support Facility		
		H-12L NIKE Missile "Battery B" Launch Site H-12R Debris Site			
		H-81R Debris Site			
		H-83C NIKE Missile			
		"Battery C" Control			
		H-83L NIKE Missile "Battery C" Launch			
		Site			
		Igloo Site			
		PSN 01 Antiaircraft			
		Gun Site			
		PSN 04 Antiaircraft			
		Gun Site/			
		Underground Room			
		PSN 07/10 Antiaircraft			
		Gun Site			
		PSN 12/14		•	
		Antiaircraft			
		Gun Site/Motor Pool			
		PSN 12/14			
		Military			
		Construction Dump			
		PSN 72/82			
		Antiaircraft Gun			
		Site	I SHOW I SHOW		
		PSN 80 Debris Site			
		PSN 90 Antiaircraft			
		Gun Site			
		Radar Site			
		Shrapnel Site			
		Power Pole 12-3			
		Cistern			
		Clay Pit Cistern			
		Cow Camp Cistern			
		Homestead Cistern			
		Overlook Cistern			
		Stock Tank Cistern			
		and Well Site			
		Stove Cistern			

Prioritized Listing of Operable Units. (sheet 21 of 27)

riority	Operable Unit	<u>Title of Units</u>	<u>Unit Type</u>	Lead Regulatory <u>Agency</u>	Unit <u>Category</u>
	100-IU-3 (continued)	Wagon Road Cistern Wasteway Cistern Dune Homestead Lonetree Homestead Asbestos Pipe Site Asphalt Batch Plant Coyote Bait Can/Bait Station Gravel Pit #47 Gravel Pit #56 Hanford Firing Range Wahluke Schoolhouse Bridge Overlook Dump Site			
С	1100-EM-2	1100 Hoist Rams 1100 HWSA 1100 Steam Pad Tank #2 1100 Steam Pad Tank #3 1100 Used Oil Tank #4 1100 Used Oil Tank #5	Storage Tank	EPA	
		1100 Used Oil Tank #6 700 Area Waste Solvent Tank	Storage Tank Storage Tank		
С	1100-EM-3	1208 HWSA 1226 HWSA 1234 Storage Yard 1240 HWSA Jones Yard HWSA Underground Used Oil Tank	Staging Area Staging Area Staging Area Staging Area Staging Area Storage Tank	EPA	
С	1100-IU-1	UN-3000-1 6652-C SSL	Unplanned Release Septic Tank	EPA	
C	1100-10-1	Active Septic Tank 6652-C SSL Inactive Septic Tank	Septic Tank	LFM	
		6652-I ALE Septic Tank	Septic Tank		
		6652-G ALE Septic Tank	Septic Tank		
		Rattlesnake Mtn. NIKE Missile Base	Test Treatment or Support Facility		

Prioritized Listing of Operable Units. (sheet 22 of 27)

Priority	Operable Unit	Title of Units	<u>Unit Type</u>	Lead Regulatory Agency	Unit Categor
С	200-BP-10	218-E-2 218-E-2A 218-E-4 218-E-5 218-E-5A 218-E-9 UN-200-E-61 UN-200-E-95 UN-200-E-112	Burial Ground Burial Ground Burial Ground Burial Ground Burial Ground Burial Ground Unplanned Release Unplanned Release Unplanned Release	Ecology	
С	200-BP-3	216-B-35 216-B-36 216-B-37 216-B-38 216-B-39 216-B-40 216-B-41 216-B-42	Trench Trench Trench Trench Trench Trench Trench Trench Trench	Ecology	
C	200-BP-6	216-B-4 216-B-5 216-B-6 216-B-9TF 216-B-10A 216-B-10B 216-B-13 216-B-56 216-B-59A 216-B-59B 216-B-60 218-E-6 218-E-7 241-B-154 241-B-302-B 241-B361 241-BX-155 241-BX-155 241-BX-302B 241-BX-302C	Reverse Well Reverse Well Reverse Well Crib Crib Crib French Drain Crib Trench Retention Basin Crib Burial Ground Burial Ground Diversion Box Catch Tank Settling Tank Diversion Box Diversion Box Catch Tank Catch Tank Catch Tank	Ecology	CPP
	. **	241-ER-152 270-E Condensate Neutralization Tank 2607-E3 2607-E4	Diversion Box Neutralization Tank Septic Tank Septic Tank		CPP CPP CPP
		Tile Field South of 218-E-4 UN-200-E-1 UN-200-E-2 UN-200-E-3 UN-200-E-7	Unplanned Release Unplanned Release Unplanned Release Unplanned Release Unplanned Release		CPP CPP CPP CPP

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Prioritized Listing of Operable Units. (sheet 23 of 27)

·iority	Operable Unit	Title of Units	<u>Unit Type</u>	Lead Regulatory Agency	Unit Category
	200-BP-6 (continued)	UN-200-E-41 UN-200-E-44 UN-200-E-52 UN-200-E-54 UN-200-E-55 UN-200-E-69 UN-200-E-80 UN-200-E-85 UN-200-E-87 UN-200-E-90 UN-200-E-103 UN-200-E-140	Unplanned Release		CPP
C	200-BP-8	207-B 2607-E9	Retention Basin Septic Tank	Ecology	
C	200-BP-9	200 Area Construction Pit 216-B-12 216-B-55 216-B-62 216-B-64 241-ER-151 241-ER-311 UN-200-E-64	Pit Crib Crib Crib Retention Basin Diversion Box Catch Tank Unplanned Release	Ecology	
C	200-NO-1 (Source O.U.)	216-N-1 216-N-2 216-N-3 216-N-4 216-N-5 216-N-6 216-N-7	Pond Trench Trench Pond Trench Pond Trench	EPA	
С	200-P0-6	200-E Burning Pit 218-E-12A 218-E-8 UN-200-E-62	Pit Burial Ground Burial Ground Unplanned Release	Ecology	

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Prioritized Listing of Operable Units. (sheet 24 of 27)

Priority	Operable Unit	Title of Units	<u>Unit Type</u>	Lead Regulatory Agency	Unit Categor
С	200-R0-1	216-S-4 216-S-5	French Drain Crib	EPA	RPP RPP
		216-S-6	Crib		RPP
		216-S-10D	Ditch		TSD (D-2-7)
		216-S-10P	Pond		TSD (D-2-7)
		216-S-11	Pond Ditch		RPP RPP
		216-S-16D 216-S-16P	Pond		RPP
		216-S-17	Pond		RPP
		216-S-172	Control Structure		RPP
		216-S-19	Pond		RPP
		216-S-21	Crib		RPP
		216-S-25	Crib		RPP
		2607-WZ	Septic Tank		RPP
		2904-S-160	Control Structure		RPP
		2904-S-170	Control Structure		RPP
		2904-S-171	Control Structure		RPP
С	200-R0-2	207-S	Retention Basin	EPA	
		216-S-1&2	Crib		
		216-S-3	French Drain		
		216-S-7	Crib		
		216-S-8	Trench		
		216-S-9	Crib		
		216-S-13	Crib		
		216-S-15	Pond		
		216-S-18	Trench		
		216-S-23	Crib		
		218-W-9	Burial Ground		
		241-S-151 241-S-302A	Diversion Box Catch Tank		
		241-SX-302	Catch Tank		
		UN-200-W-32	Unplanned Release		
		UN-200-W-34	Unplanned Release		
		UN-200-W-41	Unplanned Release		
		UN-200-W-42	Unplanned Release		
		UN-200-W-49	Unplanned Release		
		UN-200-W-50	Unplanned Release		
		UN-200-W-52	Unplanned Release		
		UN-200-W-69	Unplanned Release		
		UN-200-W-82	Unplanned Release		
		UN-200-W-83	Unplanned Release		
		UN-200-W-108	Unplanned Release		
		UN-200-W-109	Unplanned Release		
		UN-200-W-114	Unplanned Release		
		UN-200-W-123	Unplanned Release		
		UN-200-W-127	Unplanned Release		

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Prioritized Listing of Operable Units. (sheet 25 of 27)

iority	Operable Unit	<u> Title of Units</u>	<u>Unit Type</u>	Lead Regulatory Agency	Unit <u>Category</u>
C	200-R0-3	207-SL 216-S-12 216-S-14 216-S-20 216-S-26 218-W-7 240-S-151 240-S-152 240-S-302 2607-W6 UN-200-W-30 UN-200-W-35 UN-200-W-43 UN-200-W-56 UN-200-W-61 UN-200-W-61 UN-200-W-116	Retention Basin Trench Trench Crib Crib Crib Burial Ground Diversion Box Diversion Box Catch Tank Septic Tank Unplanned Release	EPA	
C	200-TP-3	207-T 216-T-12 216-T-14 216-T-15 216-T-16 216-T-4-1D 216-T-4-2 216-T-4A 216-T-4B 216-T-6 UN-200-W-7 UN-200-W-63	Retention Basin Trench Trench Trench Trench Ditch Ditch Pond Pond Crib Unplanned Release Unplanned Release	EPA	
C	200-ZP-3	218-W-1 218-W-1A 218-W-2 218-W-2A 218-W-3 218-W-4A 218-W-11 2607-WWA Z Plant Burning Pit UN-200-W-11 UN-200-W-132	Burial Ground Surial Ground Vertic Tank Pit Unplanned Release Unplanned Release Unplanned Release	Ecology	

APPENDIX C
Prioritized Listing of Operable Units. (sheet 26 of 27)

Priority	Operable Unit	Title of Units	<u>Unit Type</u>	Lead Regulatory <u>Agency</u>	Unit Categor
С	100-IU-6	Hanford Townsite	Landfill	EPA	RPP
		Hanford Trailer Camp Landfill	Landfill		RPP
		213 J & K P-11	Crib Crib		RPP RPP
		UN-600-16 UN-600-18 UN-600-19	Unplanned Release Unplanned Release Spill		RPP RPP RPP
D	100-IU-4	Sodium Dichromate Barrel Disposal	Landfill	Ecology	
D	100-IU-5	White Bluffs Pickling Acid	Crib	Ecology	
D	200-SS-1	200-E Powerhouse Ash Pit	Ash Pit	Ecology	
		218-E-3	Burial Ground		
		2607-E1 2607-E7B	Septic Tank Septic Tank		
		2607-E8	Septic Tank		
		2607-EH	Septic Tank		
		2607-EK	Septic Tank		
		2607-EM	Septic Tank		
		2607-EP	Septic Tank		
		2607-EQ	Septic Tank		
		2607-ER	Septic Tank		
		2607-GF	Septic Tank		
		Chemical Tile Field North of 2703-E	Drain field		
D 2	200-SS-2	200 West Ash Disposal Basin	Ash Pit	EPA	
		200 West Burning Pit 200-W Powerhouse	Burning Pit Ash Pit		
		Ash Pit	Crib		
		216-W-LC 2607-W1	Septic Tank		
		2607-W2	Septic Tank		
		UN-200-W-88	Unplanned Release		
D a	200-IU-1	Exploratory Shaft HWSA	Staging Area	Ecology	
		Exploratory Shaft Septic Tank	Septic Tank		
		6607-3	Septic Tank		
	200-IU-6 (Source O.U.)	216-A-25 216-N-8	Pond Pond	Ecology	

APPENDIX C
Prioritized Listing of Operable Units. (sheet 27 of 27)

riority	Operable Unit	<u>Title of Units</u>	<u>Unit Type</u>	Lead Regulatory Agency	Unit Category
D	200-IU-2	NSTF Septic Tank NSTF Underground Tank 628-2 1607-FSM	Septic Tank Storage Tank Burning Pit Septic Tank	Ecology	
D	200-IU-5	Batch Plant HWSA 2607-FSN 622-1 622-R Old Central Shop Area	Staging Area Septic Tank Dumping Area Septic Tank	EPA	
	200-BP-7	This Operable Unit and transferred to TSD S-2	d its associated waste 2-4 in Appendix B.	sites	
	200-P0-3	This Operable Unit and transferred to TSD S-2	i its associated waste 2-4 in Appendix B.	sites	
	200-R0-4	This Operable Unit and transferred to TSD S-2	d its associated waste 2-4 in Appendix B.	sites	
	200-TP-5	This Operable Unit and transferred to TSD S-2	d its associated waste 2-4 in Appendix B.	sites	
	200-TP-6	This Operable Unit and transferred to TSD S-2	d its associated waste 2-4 in Appendix B.	sites	
	200-UP-3	This Operable Unit and transferred to TSD S-2	l its associated waste 2-4 in Appendix B.	sites	

\*This operable unit contains single-shell tanks and is not prioritized with other operable units. Schedules for RFI/CMS work plans and subsequent characterization are being developed as part of the SST system closure/corrective action work plan.

ALE = Arid Lands Ecology Reserve

CPP = CERCLA Past-Practice

Ecology = Washington State Department of Ecology EPA = U.S. Environmental Protection Agency

GW = Groundwater

HWSA = Hazardous Waste Staging Area NRDW = Nonradioactive Dangerous Waste

NSTF =

O.U. = Operable Unit

RLWS = Radioactive Liquid Waste Sewer

RPP = RCRA Past-Practice

SSL = Space Science Laboratory

TSD = Treatment, Storage, and Disposal

USBR =

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#### APPENDIX D

#### **WORK SCHEDULE**

- Listing of Currently Identified Interim and Major Milestones
- Time-Scaled Logic Networks

#### NOTES:

Major Milestones are indicated by a -00 suffix (example, M-21-00). Interim Milestones are indicated by a suffix greater than zero (example, M-22-02). A target date is indicated by a "T" (example, M-21-02-T01). See Section 2.0 of this Action plan for more details.

Milestones and target dates which are completed, or have been deleted by an approved Tri-Party Agreement change request, are not displayed in Appendix D and have been archived.

Table D. Major and Interim Milestones

Number	Milestone	<u>Due Date</u>
M-05-03	INTERIM STABILIZE AN ADDITIONAL 4 SINGLE SHELL TANKS.	9/30/1991
M-13-00J	SUBMIT PLANNING DOCUMENTATION NECESSARY TO COMPLETE THE	12/31/1996
LEAD AGENCY: EPA	RI/FS PROCESS FOR 100-IU-2 AND 100-IU-6.	
	DOCUMENTATION FOR M-13-00I AND M-13-00J MAY INCLUDE PLANS CONSISTENT WITH THE HANFORD PAST PRACTICE STRATEGY. THE PURPOSE OF THESE PLANS IS TO PROVIDE SUFFICIENT INFORMATION TO MEET THE REQUIREMENTS OF THE RI/FS PROCESS TO SUPPORT APPROPRIATE CLEANUP DECISIONS FOR THE REMAINING 100 NPL AREA OPERABLE UNITS. COMPLETION OF THE RI/FS (PRE-ROD) PROCESS SHALL BE SATISFIED BY SUBMITTAL OF THE PROPOSED PLAN.	
M-13-00K	SUBMIT 2 200 NPL RI/FS (RFI/CMS) WORK PLANS.	12/31/2000
LEAD AGENCY: DUAL (NOTE 1)		
I-13-00L	SUBMIT 3 200 NPL RI/FS (RFI/CMS) WORK PLANS.	12/31/2001
EAD AGENCY: DUAL (NOTE 1)		
1-13-00M	SUBMIT 3 200 NPL RI/FS (RFI/CMS) WORK PLANS.	12/31/2002
EAD AGENCY: OUAL (NOTE 1)		
1-13-00N	SUBMIT 3 200 NPL RI/FS (RFI/CMS) WORK PLANS.	12/31/2003
EAD AGENCY: DUAL (NOTE 1)		
1-13-000	SUBMIT 3 200 NPL RI/FS (RFI/CMS) WORK PLANS.	12/31/2004
EAD AGENCY: DUAL (NOTE 1)		
1-13-00P	SUBMIT 4 200 NPL RI/FS (RFI/CMS) WORK PLANS.	12/31/2005
EAD AGENCY: DUAL (NOTE 1)		
I-13-00Q	SUBMIT 4 200 NPL RI/FS (RFI/CMS) WORK PLANS.	12/31/2006
EAD AGENCY: DUAL (NOTE 1)		

NOTE 1: SEE OPERABLE UNIT LRA DESIGNATION LISTING IN APPENDIX C.

Number	Milestone	<u>Due Date</u>
M-13-11	SUBMIT 200-PO-2 RFI/CMS CLOSURE/POSTCLOSURE WORK PLAN.	6/30/1998
M-13-12	SUBMIT 200-PO-4 RFI/CMS CLOSURE/POSTCLOSURE WORK PLAN.	10/31/1998
M-13-13	SUBMIT 1 200 NPL RI/FS (RFI/CMS) WORK PLAN.	12/31/1998
M-13-14	SUBMIT 200-IU-3 RFI/CMS CLOSURE/POSTCLOSURE WORK PLAN.	2/28/1999
M-13-15	SUBMIT 200-RO-1 RFI/CMS CLOSURE/POSTCLOSURE WORK PLAN.	6/30/1999
M-13-16	SUBMIT 200-PO-5 RFI/CMS CLOSURE/POSTCLOSURE WORK PLAN.	10/31/1999
M-13-17	SUBMIT 200-SO-1 RFI/CMS CLOSURE/POSTCLOSURE WORK PLAN.	2/28/2000
M-15-00	COMPLETE THE RI/FS (OR RFI/CMS) PROCESS FOR ALL OPERABLE UNITS.	12/31/2008
M-15-00A	COMPLETE ALL REMAINING 100 AREA OPERABLE UNIT PRE-ROD SITE INVESTIGATIONS UNDER APPROVED WORK PLAN SCHEDULES	12/31/1999
LEAD AGENCY: EPA	(100-KR-2, 100-KR-3, 100-FR-2, 100-IU-2, AND 100-IU-6).	
M-15-00B	COMPLETE ALL 300 AREA OPERABLE UNIT PRE-ROD SITE INVESTIGATIONS UNDER APPROVED WORK PLAN SCHEDULES.	12/31/1999
LEAD AGENCY: EPA	INVESTIGATIONS UNDER APPROVED WORK PLAN SCHEDULES.	
M-15-00C	COMPLETE ALL 200 AREA NON-TANK FARM OPERABLE UNIT PRE- ROD SITE INVESTIGATIONS UNDER APPROVED WORK PLAN	12/31/2008
LEAD AGENCY: DUAL (NOTE 1)	SCHEDULES.	
M-15-02E-T3	EPA WILL ISSUE A FINAL ROD FOR THE 200-BP-1 OU.	6/01/1994
M-15-02E-T4	DOE WILL SUBMIT A DEFINITIVE DESIGN FOR THE MODIFIED RCRA BARRIER TO EPA/ECOLOGY 2 MONTHS AFTER THE ROD IS ISSUED BUT NO SOONER THAN AUGUST 1, 1994.	2 MONTHS AFTER ISSUANCE OF
	(THIS TARGET DATE DUE 2 MONTHS AFTER EPA ISSUES ROD - SEE M-15-02E-T03)	OF ROD BY EPA
M-15-02E-T5	DOE WILL SUBMIT A REMEDIAL ACTION PLAN TO EPA/ECOLOGY 4 MONTHS AFTER THE ROD IS ISSUED BUT NO SOONER THAN OCTOBER 1, 1994.	4 MONTHS AFTER ISSUANCE OF OF ROD BY EPA

### NOTE 1: SEE OPERABLE UNIT LRA DESIGNATION LISTING IN APPENDIX C.

Table D. Major and Interim Milestones

Number	Milestone	<u>Due Date</u>
M-15-02E-T6	DOE WILL COMPLETE THE BID AND AWARD CYCLE FOR THE FINAL BARRIER 8 MONTHS AFTER THE ROD IS ISSUED BUT NO SOONER THAN FEBRUARY 15, 1995.	8 MONTHS AFTER ISSUANCE OF OF ROD BY EPA
M-15-02E-T7	DOE WILL COMPLETE REMEDIATION ACTIVITIES AT THE 200-BP-1 OU 15 MONTHS AFTER THE ROD IS ISSUED BUT NO SOONER THAN OCTOBER 1, 1994.	15 MONTHS AFTER ISSUANCE OF OF ROD BY EPA
M-15-12A	SUBMIT LIMITED FIELD INVESTIGATION REPORT FOR NEW WORK COMPLETED UNDER 100-NR-1 AND 100-NR-2 RFI/CMS WORK PLANS.	7/31/1996
M-15-12B	SUBMIT CLOSURE PLAN/CORRECTIVE MEASURES STUDY (CMS) FOR 1301-N/1325-N TO ECOLOGY AND/OR EPA FOR APPROVAL IN ACCORDANCE WITH THEIR RESPECTIVE AUTHORITIES. THE CMS WILL INCLUDE FOCUSED FEASIBILITY STUDY (FFS) INFORMATION, CLOSURE AND POSTCLOSURE INFORMATION, PROPOSED INTERIM RESPONSE MEASURE (IRM) RCRA PERMIT MODIFICATIONS AND WORK SCHEDULES FOR THE 1301-N/1325-N FACILITIES.	3/31/1997
	IN AN EFFORT TO ACHIEVE COORDINATED MANAGEMENT OF 100-N AREA ACTIVITIES, CLOSURE AND POSTCLOSURE REQUIREMENTS OF WASHINGTON STATE'S HAZARDOUS WASTE MANAGEMENT ACT (CHAPTER 70.105 RCW AND ITS IMPLEMENTING REGULATIONS) APPLICABLE TO THE 1301-N AND 1325-N CRIBS WILL BE MET AND ADDRESSED WITHIN THE 1301-N/1325-N CMS. ECOLOGY CMS APPROVAL WILL CONSTITUTE 1301-N/1325-N CLOSURE PLAN APPROVAL.	
M-15-12C	SUBMIT 100-NR-1 AND 100-NR-2 CMS TO ECOLOGY AND/OR EPA FOR APPROVAL IN ACCORDANCE WITH THEIR RESPECTIVE AUTHORITIES. THE 100-NR-1 AND 100-NR-2 CMS WILL ADDRESS 1324-N/NA TSD EXISTING GROUNDWATER CONTAMINATION, AND LOWER PRIORITY PAST PRACTICE SITES. THE CMS WILL INCLUDE FFS INFORMATION, CLOSURE AND POSTCLOSURE INFORMATION, PROPOSED IRM RCRA PERMIT MODIFICATIONS AND WORK SCHEDULES FOR ALL SITES.	11/30/1996
	IN AN EFFORT TO ACHIEVE COORDINATED MANAGEMENT OF 100-N AREA ACTIVITIES, CLOSURE AND POSTCLOSURE REQUIREMENTS OF WASHINGTON STATE HAZARDOUS WASTE MANAGEMENT ACT (CHAPTER 70.105 RCW AND ITS IMPLEMENTING REGULATIONS) APPLICABLE TO THE 1324-N/NA CRIB WILL BE MET AND ADDRESSED WITHIN THE 100-NR-1 AND 100-NR-2 CMS. ECOLOGY CMS APPROVAL WILL CONSTITUTE 1324-N/NA CLOSURE PLAN APPROVAL.	

Number	Milestone	<u>Due Date</u>
M-15-15E	ISSUE FINAL DRAFT 200-UP-2 LIMITED FIELD INVESTIGATION (LFI) REPORT, FINAL DRAFT FFS REPORT, AND FINAL DRAFT IRM PROPOSED PLAN (THIS SEQUENCE OF DOCUMENTS WILL INCLUDE THE REQUIREMENTS OF THE 216-U-12 RCRA CLOSURE/POSTCLOSURE PLAN) TO ECOLOGY AND EPA. THE LFI REPORT, FFS REPORT, AND IRM PROPOSED PLAN WILL EACH UNDERGO REGULATOR REVIEW AND COMMENT INCORPORATION TO PRODUCE AN APPROVED DOCUMENT. EACH DOCUMENT THAT ADDRESSES RCRA CLOSURE WILL BE STRUCTURED SUCH THAT THE RCRA CLOSURE ASPECTS CAN BE READILY IDENTIFIED FOR A SEPARATE REVIEW/APPROVAL PROCESS.	12/31/1996
M-15-23A	SUBMIT THE 300-FF-2 LIMITED FIELD INVESTIGATION REPORT FOR REGULATOR REVIEW.	9/30/1996
M-15-23B	SUBMIT THE 300-FF-2 FOCUSED FEASIBILITY STUDY REPORT AND PROPOSED PLAN FOR REGULATOR REVIEW.	7/31/1999
M-15-25A	SUBMIT 200-PO-1 CORRECTIVE MEASURES STUDY (CMS).	7/31/1996
M-15-25B	SUBMIT 200-PO-1 PERMIT MODIFICATION.	8/30/1996
M-15-80	SUBMIT FOR REVIEW TO EPA, ECOLOGY, TECHNICAL PEER REVIEWERS, CRCIA TEAM, AND THE PUBLIC A DRAFT INTERIM REPORT (CONSIDERED AN INITIAL SCREENING ASSESSMENT REPORT FOR THE "COLUMBIA RIVER COMPREHENSIVE IMPACT ASSESSMENT" BY THE CRCIA TEAM) WHICH INCORPORATES HUMAN HEALTH AND ECOLOGICAL RISK ASSESSMENTS AND DOCUMENTS COMPLETION OF THE PHASE 1 WORK DETAILED ON PAGE 4, ITEMS #1 AND 4.	12/19/1996
	(FROM PAGE 4 REFERRED TO ABOVE): "THE FOLLOWING WORK WITH PROACTIVE INVOLVEMENT BY THE NON-TPA MEMBERS, WILL BE PERFORMED IN RESPONSE TO TPA MILESTONE M-15-80:	
	1. PERFORM AN ASSESSMENT OF HANFORD-DERIVED CONTAMINANTS (EXISTING CONDITIONS INCLUDING RESIDUAL CONTAMINANTS FROM PAST OPERATIONS) IN A SCREENING ASSESSMENT TO SUPPORT IRM DECISIONS.	
	2. COMPILE AND MAKE AVAILABLE TO THE PUBLIC THE APPROXIMATELY 2000 DOCUMENTS IDENTIFIED IN APPENDIX A OF THE DATA COMPENDIUM; PERTINENT SUPPORTING HANFORD DATA WILL BE MADE AVAILABLE.	
	3. WORK WITH THE DECLASSIFICATION EFFORTS OF THE HAB IN IDENTIFYING THE COLUMBIA RIVER DOCUMENTS AS A HIGH PRIORITY FOR RELEASE.	
	4. DEFINE THE ESSENTIAL WORK REMAINING TO PROVIDE AN ACCEPTABLE "COMPREHENSIVE" RIVER IMPACT ASSESSMENT. THIS WORK WILL BE DOCUMENTED IN THE SAME REPORT AS THE SCREENING ASSESSMENT.	

Number	Milestone	Due Date
	5. DATA (FROM 2 & 3) WILL BE AVAILABLE FOR RECONCILIATION AGAINST THE SCREENING ASSESSMENT.	
	THESE ACTIONS ARE DESIGNED TO FULFILL THE REQUIREMENTS FOR A SCREENING ASSESSMENT TO SUPPORT IRM DECISIONS LIMITED ONLY BY THE TIME AND FY96 FUNDS AVAILABLE FOR THIS EFFORT. HOWEVER, THE "COMPREHENSIVENESS" ISSUE IS LEFT OPEN. WORK IDENTIFIED UNDER #4 WILL BE ASSIGNED TPA MILESTONES AS APPROPRIATE, SCOPED, PRIORITIZED AND SCHEDULED.	
M-15-80-T01	SUBMIT A REVISED REPORT OF THE DRAFT FROM M-15-80 WHICH INCORPORATES RESPONSES TO COMMENTS FROM THE CRCIA TEAM, TECHNICAL PEER REVIEWERS AND THE PUBLIC. RESPONSES ARE TO BE BASED ON CONSENSUS OF THE CRCIA TEAM TO THE EXTENT PRACTICABLE; TO THE EXTENT THAT COMMENTS CANNOT BE RECONCILED, "MINORITY OPINIONS" WILL BE INCLUDED.	4/30/1997
M-15-80A	DOE IS TO PROVIDE A LIST OF COMPREHENSIVE WORK SCOPE TASKS DEVELOPED AND PRIORITIZED IN COORDINATION WITH THE CRCIA TEAM (NOT BASED ON FUNDING).	2/28/1997
M-15-80B	DOE IS TO PROVIDE A RECOMMENDATION FOR FOLLOW-ON WORK TO M-15-80, PRIMARILY BASED ON M-15-80A, AS WELL AS FUNDING CONSIDERATIONS, OVERALL SITEWIDE OBJECTIVES, AND TPA AUTHORITY. THIS WILL INCLUDE FUTURE MILESTONES.	6/30/1997
M-15-80B-T1	DOE IS TO PROVIDE TO EPA AND ECOLOGY AN INITIAL RECOMMENDATION FOR CRCIA "NEXT PHASE(S)" BUDGETED WORK TO BE USED AS INPUT INTO THE FY 1999 BUDGET SUBMISSION (TO INCLUDE RECOMMENDATIONS FOR FY 1998). RECOMMENDATION ARE TO BE BASED ON CRCIA WORKSCOPE PRIORITIZATION DISCUSSIONS WITH THE CRCIA TEAM.	1/10/1997
M-16-00	COMPLETE REMEDIAL ACTIONS FOR ALL NON-TANK FARM OPERABLE UNITS. COMPLETE DECONTAMINATION AND	9/30/2018
LEAD AGENCY: DUAL (NOTE 1)		
M-16-00A	COMPLETE ALL 100 AREA REMEDIAL ACTIONS.	TBD
M-16-00B	COMPLETE ALL 300 AREA REMEDIAL ACTIONS.	TBD
M-16-00F	ESTABLISH DATE FOR COMPLETION OF ALL 100 AREA REMEDIAL ACTIONS.	12/31/2001
M-16-01	COMPLETE 100-N AREA DECONTAMINATION AND DECOMMISSIONING.	TBD

NOTE 1: SEE OPERABLE UNIT LRA DESIGNATION LISTING IN APPENDIX C.

Number	Milestone	<u>Due Date</u>
M-16-01A	SUBMIT NECESSARY 100-N AREA DECONTAMINATION AND DECOMMISSIONING (D&D) NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) DOCUMENTATION FOR PUBLIC REVIEW.	6/30/1997
M-16-01B	COMPLETE NEGOTIATION OF 100-N AREA D&D WORK SCHEDULES. [DUE SIX MONTHS AFTER ENVIRONMENTAL IMPACT STATEMENT RECORD OF DECISION (OR EQUIVALENT)].	DUE 6 MONTHS AFTER EIS ROD (OR EQUIVALENT)
M-16-01E	COMPLETE N REACTOR/100-N AREA DEACTIVATION PURSUANT TO THE WORK SCOPE IDENTIFIED IN THE "N REACTOR DEACTIVATION PROGRAM PLAN", REVISION 4, WHC-SP-0615, DECEMBER 1993.	9/30/1997
	NOTE: THE THREE PARTIES WILL REVIEW PROGRESS, ISSUES AND CRITICAL PATH ACTIVITIES SEMI-ANNUALLY TO ASSURE PROGRESS TOWARDS 100-N AREA DEACTIVATION BY SEPTEMBER 1997. CRITICAL PATH ACTIVITIES WILL BE DEFINED IN THE N-REACTOR DEACTIVATION PROGRAM PLAN [REVISION 5, NOVEMBER 1994]. OVERALL SCHEDULE AND SCOPE IS DEFINED IN REVISION 4; CRITICAL PATH ACTIVITIES AND NEW INFORMATION WILL BE DEFINED IN REVISION \$.	
M-16-01E-T2	INITIATE PRETREATMENT AND REMOVAL OF ALL N REACTOR FUEL- STORAGE BASIN WATERS PURSUANT TO THE N REACTOR DEACTIVATION PROGRAM PLAN.	9/30/1996
M-16-01E-T3	COMPLETE CHARACTERIZATION OF N REACTOR FUEL. STORAGE BASIN SLUDGE AND DEBRIS.	4/30/1997
M-16-03A	ESTABLISH DATE FOR COMPLETION OF 300 AREA REMEDIAL ACTIONS.	6/30/2002
M-17-00B  LEAD AGENCY: ECOLOGY	COMPLETE IMPLEMENTATION OF "BEST AVAILABLE TECHNOLOGY/ALL KNOWN, AVAILABLE, AND REASONABLE METHODS OF PREVENTION, CONTROL, AND TREATMENT (BAT/AKART) FOR ALL PHASE II LIQUID EFFLUENT STREAMS AT THE HANFORD SITE.  HANFORD'S 14 PHASE II LIQUID EFFLUENT STREAMS ARE DISCHARGED TO CRIBS, PONDS, DITCHES, OR ROUTED TO STORAGE FACILITIES. PHASE II STREAMS ARE DEFINED IN THE "ANNUAL STATUS REPORT OF THE PLAN AND SCHEDULE TO DISCONTINUE DISPOSAL OF CONTAMINATED LIQUIDS INTO THE SOIL COLUMN AT THE HANFORD SITE", SEPTEMEER 1988. SOME OF THE CRIBS, PONDS, OR DITCHES ARE RCRA WASTE DISPOSAL UNITS. THESE, ALONG WITH OTHERS, ARE LOCATED IN AREAS REQUIRING INACTIVE SITE INVESTIGATIONS/REMEDIAL ACTIONS.  ALL PHASE II EFFLUENT STREAMS, EXCEPT THOSE WHICH HAVE BEEN ELIMINATED (E.G., THE 209-E REFLECTOR WATER AND 163-N DEMINERALIZER LIQUID EFFLUENT), ARE MANAGED THROUGH A SEQUENCE OF INTERIM MILESTONES. INTERIM MILESTONES FOR PHASE II STREAMS INCLUDE THE DEVELOPMENT	10/31/1997

Number

Milestone

Due Date

AND IMPLEMENTATION OF AN IMPACT ASSESSMENT METHODOLOGY, SAMPLING AND ANALYSIS PLANS, TREATMENT SYSTEM DESIGN AND CONSTRUCTION COMMITMENTS, INTERIM FLOW RESTRICTIONS AND DATES FOR CEASING DISCHARGE. SPECIFIC INTERIM/TARGET MILESTONE DATES FOR EACH STREAM AND ANY ASSOCIATED TREATMENT OR DISPOSAL FACILITIES ARE INCLUDED IN THE APPENDIX D WORK SCHEDULES. THE OCTOBER 1997 COMPLETION DATE FOR MILESTONE M-17-00B SHALL REMAIN UNCHANGED UNLESS ALL PARTIES AGREE THAT A CHANGE IS NECESSARY IN ACCORDANCE WITH ARTICLE XL OF THE TRI-PARTY AGREEMENT. THE PARTIES RECOGNIZE THAT THE MILESTONE MAY BE REVISED TO ACCELERATE OR DELAY IMPLEMENTATION OF BAT/AKART BASED ON THE RESULTS OF THE BAT/AKART EVALUATIONS FOR EACH OF THE NINE PHASE II LIQUID EFFLUENT STREAMS INCLUDED IN MILESTONE M-17-00B. NEGOTIATIONS ON THE SCHEDULE FOR IMPLEMENTATION OF BAT/AKART AT EACH OF THE PHASE II LIQUID EFFLUENT STREAMS SHALL BE FINALIZED BY DECEMBER 1992. SUCH NEGOTIATIONS SHALL BE BASED ON THE BAT/AKART EVALUATIONS, THE COMPLEXITY OF THE REQUIRED TREATMENT AND ANY OTHER TECHNOLOGY NECESSARY TO MEET EFFLUENT GUIDELINES AND PERMITTING REQUIREMENTS SET FORTH BY ECOLOGY AND EPA. DOE WILL ASSURE ECOLOGY AND EPA OF MEANINGFUL AND FULLY FUNDED PARTICIPATION IN THE BAT/AKART DETERMINATION FOR EACH OF THE FOLLOWING PHASE II LIQUID EFFLUENTS:

B-PLANT COOLING WATER
AY/AZ TANK FARM STEAM CONDENSATE
242-A EVAPORATOR COOLING WATER
242-A EVAPORATOR STEAM CONDENSATE
241-A TANK FARM COOLING WATER
244-AR VAULT COOLING WATER
183-D FILTER BACKWASH
284-E POWER PLANT WASTEWATER
400 AREA SECONDARY COOLING WATER.

M-17-06K

REPLACE THE 300 AREA PROCESS SEWER PIPING BEGINNING AT FIVE FEET OUTSIDE THE CONTRIBUTOR BUILDINGS (UNLESS SPECIAL CONDITIONS MAKE THIS IMPRACTICAL) AND REPLACING THE PIPING UP TO THE INTERFACE POINT INTO THE 300 AREA TREATED EFFLUENT DISPOSAL FACILITY BY JUNE 1997. PIPING INSTALLED CIRCA 1970 OR MORE RECENTLY, WHICH CAN BE JUSTIFIED FOR CONTINUED USE, NEED NOT BE REPLACED. EXCEPTIONS STATED ABOVE WILL BE APPROVED AS IF THEY ARE CLASS III CHANGES (LEAD AGENCY APPROVAL) ON A CASE-BY-CASE BASIS.

6/30/1997

Number	Milestone	Due Date
M-18-00  LEAD AGENCY: ECOLOGY	COMPLETE WRAP MODULE I CONSTRUCTION AND INITIATE OPERATIONS. THE WRAP MODULE I IS REQUIRED TO SORT AND REPACKAGE WASTES THAT ARE PLANNED TO BE RETRIEVED FROM RETRIEVABLE STORAGE UNITS. MUCH OF THE WASTE CURRENTLY STORED IN THE RETRIEVABLE STORAGE UNITS IS ANTICIPATED TO BE RADIOACTIVE MIXED WASTE. SOME OF THE RADIOACTIVE WASTE STORED ON THE PADS IS KNOWN TO CONTAIN EXTREMELY HAZARDOUS WASTE AS WELL AS FEDERALLY LAND-BANNED WASTE.	3/31/1997
M-18-01	COMPLETE CONSTRUCTION OF WRAP MODULE I.	6/30/1996
M-19-00 LEAD AGENCY: ECOLOGY	COMPLETE WRAP MODULE II CONSTRUCTION AND INITIATE OPERATIONS. THE WRAP MODULE II WILL INCLUDE WASTE TREATMENT CAPABILITIES TO MINIMIZE LAND DISPOSAL OF LOW-LEVEL RADIOACTIVE WASTE AND RADIOACTIVE MIXED WASTE. THE SEPTEMBER 1999 COMPLETION DATE OF WRAP MODULE II IS CRITICAL TO ACHIEVING COMPLIANCE FOR THE MANAGEMENT OF WASTES THAT ARE PROHIBITED FROM LAND DISPOSAL AND EXTENDED STORAGE. WRAP MODULE 2 WILL PROVIDE FOR TREATMENT OF SECONDARY SOLID WASTE RESULTING FROM TREATED EFFLUENT DISPOSAL SYSTEMS.	9/30/1999
M-19-01	COMPLETE CONSTRUCTION OF WRAP MODULE II.	9/30/1998
M-20-00 LEAD AGENCY: ECOLOGY	SUBMIT PART B PERMIT APPLICATIONS OR CLOSURE/POSTCLOSURE PLANS FOR ALL RCRA TSD UNITS. PERMIT APPLICATIONS, CLOSURE, AND POST-CLOSURE PLANS WILL BE SUBMITTED TO ECOLOGY AND/OR EPA FOR APPROVAL IN ACCORDANCE WITH THEIR RESPECTIVE AUTHORITIES. INDIVIDUAL UNIT SUBMITTALS (ENFORCEABLE AS INTERIM MILESTONES) WILL OCCUR AS SHOWN IN APPENDIX D.	2/28/2000
	PRECLOSURE WORK PLANS WILL BE PREPARED AND SUBMITTED FOR APPROVAL FOR TSD UNITS WHICH WILL ACHIEVE CLOSURE IN CONJUNCTION WITH THE DISPOSITION OF THE FACILITY IN WHICH THEY ARE CONTAINED.	
M-20-21A	SUBMIT B PLANT PART B PERMIT APPLICATION TO ECOLOGY AND EPA. (TS-2-3)	TBD
M-20-24A	SUBMIT A PUREX PRECLOSURE WORK PLAN TO EPA AND ECOLOGY.  A PRECLOSURE WORK PLAN WILL BE SUBMITTED TO EPA AND ECOLOGY FOR APPROVAL. IT WILL INCLUDE THE PROPOSED PUREX S&M PLAN AND END POINT CRITERIA FOR APPROVAL OF ACTIONS PERTAINING TO TSD UNITS AND HAZARDOUS SUBSTANCES WHICH WILL REMAIN IN PLACE FOLLOWING	7/31/1996

Number	Milestone	<u>Due Date</u>
M-20-29A	SUBMIT SODIUM STORAGE FACILITY AND SODIUM REACTION FACILITY CLOSURE PLAN OR REQUEST FOR PROCEDURAL CLOSURE AS DEFINED IN SECTION 6.3.3 OF THIS TRI-PARTY AGREEMENT TO EPA AND ECOLOGY.	12/31/1999
	A POTENTIAL USE FOR THE SODIUM AS FEEDSTOCK IN THE TWRS PROGRAM HAS BEEN IDENTIFIED AND WILL BE EVALUATED AS DISCUSSED PURSUANT TO M-81-02-T01. THE SODIUM WILL BE STORED AS PRODUCT MATERIAL IN THE SODIUM STORAGE FACILITY UNTIL THE FINAL DISPOSITION OF THE MATERIAL IS DETERMINED. FFTF IS PROCEEDING ON THE BASIS OF PROVIDING RCRA AND WAC 173-303 COMPLIANT STORAGE FOR THE SODIUM. THE SODIUM REACTION FACILITY IS INCLUDED IN THE PERMIT REQUEST, EVEN THOUGH THE SODIUM REACTION FACILITY AVAILABILITY AND REGULATORY STATUS WILL BE DETERMINED BY THE 1998 EVALUATION/DECISION POINT. IF THE SODIUM USE FOR THE TWRS IS CONFIRMED, A REQUEST FOR PROCEDURAL CLOSURE AS DEFINED IN SECTION 6.3.3 OF THE TRI-PARTY AGREEMENT WILL BE SUBMITTED FOR THE SODIUM STORAGE FACILITY AND SODIUM REACTION FACILITY UNITS. IF THE SODIUM IS DETERMINED TO BE A WASTE, A CLOSURE PLAN WILL BE SUBMITTED FOR THE TWO UNITS.	
M-20-33	SUBMIT 216-A-10 CRIB AND 216-A-36B CRIB CLOSURE/POSTCLOSURE PLANS TO ECOLOGY AND EPA IN COORDINATION WITH THE WORK PLAN FOR OPERABLE UNIT 200-PO-2 (TO BE SATISFIED BY M-13-11).	6/30/1998
M-20-39	SUBMIT 216-S-10 POND AND DITCH CLOSURE/POSTCLOSURE PLAN TO ECOLOGY AND EPA IN COORDINATION WITH THE WORK PLAN FOR OPERABLE UNIT 200-RO-1 (TO BE SATISFIED BY M-13-15).	6/30/1999
M-20-48A	SUBMIT A PFP PART B PERMIT APPLICATION OR CLOSURE PLAN TO EPA AND ECOLOGY.	12/31/1996
	A PART B PERMIT APPLICATION OR CLOSURE PLAN FOR THE 241 -Z TSD UNITS WILL BE DEVELOPED AND SUBMITTED TO EPA AND ECOLOGY IN ACCORDANCE WITH THEIR RESPECTIVE AUTHORITIES. AN ENVIRONMENTAL IMPACT STATEMENT (EIS) IS BEING PREPARED FOR THE SHUTDOWN AND CLEANOUT OF PFP PROCESS AREAS AND STABILIZATION OF THE FACILITY. THE RECORD OF DECISION (ROD) FOR THE EIS WILL DETERMINE IF A PART B PERMIT APPLICATION IS NEEDED FOR THE 241-Z TSD UNITS OR IF A CLOSURE PLAN (OR PRE-CLOSURE WORK PLAN) WILL BE DEVELOPED.	
M-20-52	SUBMIT 216-A-37-1 CRIB CLOSURE/POSTCLOSURE PLAN TO ECOLOGY AND EPA IN COORDINATION WITH THE WORK PLAN OF OPERABLE UNIT 200-PO-4 (TO BE SATISFIED BY M-13-12)	10/31/1998

N t	Milostora	Duo Data
Number	Milestone	<u>Due Date</u>
M-20-53	SUBMIT 207-A RETENTION BASIN CLOSURE/POSTCLOSURE PLAN TO ECOLOGY AND EPA IN COORDINATION WITH THE WORK PLAN OF OPERABLE UNIT 200-PO-5 (TO BE SATISFIED BY M-13-16).	10/31/1999
M-20-54	SUBMIT 241-CX TANK SYSTEM CLOSURE/POSTCLOSURE PLAN TO ECOLOGY AND EPA IN COORDINATION WITH THE WORK PLAN OF OPERABLE UNIT 200-SO-1 (TO BE SATISFIED BY M-13-17).	2/28/2000
M-24-00  LEAD AGENCY: ECOLOGY	INSTALL RCRA GROUNDWATER MONITORING WELLS AT THE RATE OF 29 IN CY 1989, 30 IN CY 1990, AND UP TO 50 PER YEAR THEREAFTER AS SPECIFIED BY AGREED INTERIM MILESTONES UNTIL ALL LAND DISPOSAL UNITS AND SINGLE-SHELL TANKS ARE DETERMINED TO HAVE RCRA COMPLIANT MONITORING SYSTEMS.  USDOE WILL INSTALL GROUNDWATER MONITORING WELLS AROUND RCRA LAND DISPOSAL UNITS AND THE SINGLE-SHELL TANKS AT THE RATE DESCRIBED ABOVE UNTIL ECOLOGY AGREES THAT ALL SUCH GROUNDWATER MONITORING SYSTEMS MEET THE REQUIREMENTS OF WAC 173-303-645.  INSTALLATION OF GROUNDWATER WELLS SHALL MEAN THAT WELLS HAVE BEEN DRILLED, ADEQUATELY SEALED, AND SCREENED OVER NO MORE THAN 15 FEET OF THE AQUIFER UNLESS OTHERWISE APPROVED BY ECOLOGY, THAT ALL PUMPS AND ASSOCIATED SAMPLING EQUIPMENT HAVE BEEN INSTALLED, AND THAT SUCH WELLS HAVE BEEN DEVELOPED SUFFICIENTLY TO PROVIDE SATISFACTORY SAMPLES FOR ALL PARAMETERS TO BE ANALYZED.  SPECIFIC UNITS TO RECEIVE GROUNDWATER WELLS AND THE NUMBER OF WELLS TO BE INSTALLED AT EACH UNIT WILL BE IDENTIFIED IN APPENDIX D IN TWO-YEAR INTERVALS (I.E., CY 1989 AND CY 1990 NOW, CY 1990 AND CY 1991 AT THE NEXT ANNUAL UPDATE, ETC.). SUCH SCHEDULES WILL BE	ANNUALLY BEGINNING CY 1989
M-24-00H	INSTALL RCRA GROUNDWATER MONITORING WELLS AT THE RATE OF UP TO 50 IN CY 1996 (IF REQUIRED). (PLEASE REFER TO MILESTONE M-24-00 FOR COMPLETE WORDING OF THIS MILESTONE AND WORDING DETERMINING NUMBER OF WELLS TO BE DRILLED IN ANY ONE YEAR).	12/31/1996
M-24-00I	INSTALL RCRA GROUNDWATER MONITORING WELLS AT THE RATE OF UP TO 50 IN CY 1997 (IF REQUIRED). (PLEASE REFER TO MILESTONE M-24-00 FOR COMPLETE WORDING OF THIS MILESTONE AND WORDING DETERMINING NUMBER OF WELLS TO BE DRILLED IN ANY ONE YEAR).	12/31/1997
M-24-00J	INSTALL RCRA GROUNDWATER MONITORING WELLS AT THE RATE OF UP TO 50 IN CY 1998 (IF REQUIRED). (PLEASE REFER TO MILESTONE M-24-00 FOR COMPLETE WORDING OF THIS MILESTONE AND WORDING DETERMINING NUMBER OF WELLS TO BE DRILLED IN ANY ONE YEAR).	12/31/1998

Table D. Major and Interim Milestones

Number	Milestone	Due Date
M-24-00K	INSTALL RCRA GROUNDWATER MONITORING WELLS AT THE RATE OF UP TO 50 IN CY 1999 (IF REQUIRED). (PLEASE REFER TO MILESTONE M-24-00 FOR COMPLETE WORDING OF THIS MILESTONE AND WORDING DETERMINING NUMBER OF WELLS TO BE DRILLED IN ANY ONE YEAR).	12/31/1999
M-26-01G	SUBMIT AN ANNUAL HANFORD LAND DISPOSAL RESTRICTIONS REPORT IN ACCORDANCE WITH THE LDR PLAN TO COVER THE PERIOD FROM 4-1 OF THE PREVIOUS YEAR THROUGH 3-31 OF THE REPORTING YEAR.	4/30/1997 and annually thereafter
	THE REPORT SHALL INCLUDE A DESCRIPTION OF ACTIVITIES PLANNED AND TAKEN IN ACCORDANCE WITH THE LDR PLAN AND PRIOR ANNUAL LDR REPORTS TO ACHIEVE FULL COMPLIANCE WITH LDR REQUIREMENTS. THE REPORT SHALL UPDATE ALL INFORMATION CONTAINED IN THE LDR PLAN AND THE PRIOR ANNUAL LDR REPORT, INCLUDING PLANS AND SCHEDULES.	
	THE FORMAT FOR THE REPORT SHALL BE BASED ON THE "REQUIREMENTS FOR THE HANFORD LDR PLAN," ISSUED BY EPA AND ECOLOGY ON APRIL 10, 1990. ADDITIONALLY, THE REPORT SHALL DESCRIBE ANY OTHER STUDIES OR EFFORTS THAT HAVE BEEN OR WILL BE UNDERTAKEN TO IDENTIFY ALTERNATIVES TO LAND DISPOSAL OF MIXED WASTES. THE NONRADIOACTIVE PORTION OF ANY MIXED WASTES THAT ARE REGULATED UNDER WASHINGTON STATE-ONLY REGULATIONS SHALL BE ADDRESSED IN THE REPORT. THE REPORT SHALL BE SUBMITTED AS A PRIMARY DOCUMENT.	
	THE REPORT SHALL SPECIFY INTERIM MILESTONES FOR ACHIEVING COMPLIANCE WITH LDR REQUIREMENTS AT TSD MIXED WASTE UNITS. THESE MILESTONES SHALL BE BASED ON SIGNIFICANT EVENTS IDENTIFIED IN THE LDR REPORT AND ARE SHOWN IN SCHEDULES WHICH ARE UPDATED ANNUALLY AS PART OF THE REPORT. APPROPRIATE MILESTONES WILL BE INCORPORATED IN THE AGREEMENT VIA THE CHANGE PROCESS DEFINED IN SECTION 12 OF THE ACTION PLAN UPON ISSUANCE OF THE APPROVED REPORTS.	
M-26-01H	SUBMIT AN ANNUAL HANFORD LAND DISPOSAL RESTRICTIONS REPORT IN ACCORDANCE WITH THE LDR PLAN TO COVER THE PERIOD FROM 4-1 OF THE PREVIOUS YEAR THROUGH 3-31 OF THE REPORTING YEAR.	4/30/1998 and annually thereafter
	THE REPORT SHALL INCLUDE A DESCRIPTION OF ACTIVITIES PLANNED AND TAKEN IN ACCORDANCE WITH THE LDR PLAN AND PRIOR ANNUAL LDR REPORTS TO ACHIEVE FULL COMPLIANCE WITH LDR REQUIREMENTS. THE REPORT SHALL UPDATE ALL INFORMATION CONTAINED IN THE LDR PLAN AND THE PRIOR ANNUAL LDR REPORT, INCLUDING PLANS AND SCHEDULES.	,
	THE FORMAT FOR THE REPORT SHALL BE BASED ON THE "REQUIREMENTS FOR THE HANFORD LDR PLAN," ISSUED BY EPA	

Number

#### Milestone

Due Date

AND ECOLOGY ON APRIL 10, 1990. ADDITIONALLY, THE REPORT SHALL DESCRIBE ANY OTHER STUDIES OR EFFORTS THAT HAVE BEEN OR WILL BE UNDERTAKEN TO IDENTIFY ALTERNATIVES TO LAND DISPOSAL OF MIXED WASTES. THE NONRADIOACTIVE PORTION OF ANY MIXED WASTES THAT ARE REGULATED UNDER WASHINGTON STATE-ONLY REGULATIONS SHALL BE ADDRESSED IN THE REPORT. THE REPORT SHALL BE SUBMITTED AS A PRIMARY DOCUMENT.

THE REPORT SHALL SPECIFY INTERIM MILESTONES FOR ACHIEVING COMPLIANCE WITH LDR REQUIREMENTS AT TSD MIXED WASTE UNITS. THESE MILESTONES SHALL BE BASED ON SIGNIFICANT EVENTS IDENTIFIED IN THE LDR REPORT AND ARE SHOWN IN SCHEDULES WHICH ARE UPDATED ANNUALLY AS PART OF THE REPORT. APPROPRIATE MILESTONES WILL BE INCORPORATED IN THE AGREEMENT VIA THE CHANGE PROCESS DEFINED IN SECTION 12 OF THE ACTION PLAN UPON ISSUANCE OF THE APPROVED REPORTS.

M-26-01I

SUBMIT AN ANNUAL HANFORD LAND DISPOSAL RESTRICTIONS REPORT IN ACCORDANCE WITH THE LDR PLAN TO COVER THE PERIOD FROM 4-1 OF THE PREVIOUS YEAR THROUGH 3-31 OF THE REPORTING YEAR.

4/30/1999 and annually thereafter

THE REPORT SHALL INCLUDE A DESCRIPTION OF ACTIVITIES PLANNED AND TAKEN IN ACCORDANCE WITH THE LDR PLAN AND PRIOR ANNUAL LDR REPORTS TO ACHIEVE FULL COMPLIANCE WITH LDR REQUIREMENTS. THE REPORT SHALL UPDATE ALL INFORMATION CONTAINED IN THE LDR PLAN AND THE PRIOR ANNUAL LDR REPORT, INCLUDING PLANS AND SCHEDULES.

THE FORMAT FOR THE REPORT SHALL BE BASED ON THE "REQUIREMENTS FOR THE HANFORD LDR PLAN," ISSUED BY EPA AND ECOLOGY ON APRIL 10, 1990. ADDITIONALLY, THE REPORT SHALL DESCRIBE ANY OTHER STUDIES OR EFFORTS THAT HAVE BEEN OR WILL BE UNDERTAKEN TO IDENTIFY. ALTERNATIVES TO LAND DISPOSAL OF MIXED WASTES. THE NONRADIOACTIVE PORTION OF ANY MIXED WASTES THAT ARE REGULATED UNDER WASHINGTON STATE-ONLY, REGULATIONS SHALL BE ADDRESSED IN THE REPORT. THE REPORT SHALL BE SUBMITTED AS A PRIMARY DOCUMENT.

THE REPORT SHALL SPECIFY INTERIM MILESTONES FOR ACHIEVING.COMPLIANCE.WITH LDR REQUIREMENTS AT TSD MIXED WASTE UNITS. THESE MILESTONES SHALL BE BASED ON SIGNIFICANT EVENTS IDENTIFIED IN THE LDR REPORT AND ARE SHOWN IN SCHEDULES WHICH ARE UPDATED ANNUALLY AS PART OF THE REPORT. APPROPRIATE MILESTONES WILL BE INCORPORATED IN THE AGREEMENT VIA THE CHANGE PROCESS DEFINED IN SECTION 12 OF THE ACTION PLAN UPON ISSUANCE OF THE APPROVED REPORTS.

Number	Milestone	<u>Due Date</u>
M-26-01J	SUBMIT AN ANNUAL HANFORD LAND DISPOSAL RESTRICTIONS REPORT IN ACCORDANCE WITH THE LDR PLAN TO COVER THE PERIOD FROM 4-1 OF THE PREVIOUS YEAR THROUGH 3-31 OF THE REPORTING YEAR.	4/30/2000 and annuall thereafter
	THE REPORT SHALL INCLUDE A DESCRIPTION OF ACTIVITIES PLANNED AND TAKEN IN ACCORDANCE WITH THE LDR PLAN AND PRIOR ANNUAL LDR REPORTS TO ACHIEVE FULL COMPLIANCE WITH LDR REQUIREMENTS. THE REPORT SHALL UPDATE ALL INFORMATION CONTAINED IN THE LDR PLAN AND THE PRIOR ANNUAL LDR REPORT, INCLUDING PLANS AND SCHEDULES.	
	THE FORMAT FOR THE REPORT SHALL BE BASED ON THE "REQUIREMENTS FOR THE HANFORD LDR PLAN," ISSUED BY EPA AND ECOLOGY ON APRIL 10, 1990. ADDITIONALLY, THE REPORT SHALL DESCRIBE ANY OTHER STUDIES OR EFFORTS THAT HAVE BEEN OR WILL BE UNDERTAKEN TO IDENTIFY ALTERNATIVES TO LAND DISPOSAL OF MIXED WASTES. THE NONRADIOACTIVE PORTION OF ANY MIXED WASTES THAT ARE REGULATED UNDER WASHINGTON STATE-ONLY REGULATIONS SHALL BE ADDRESSED IN THE REPORT. THE REPORT SHALL BE SUBMITTED AS A PRIMARY DOCUMENT.	
	THE REPORT SHALL SPECIFY INTERIM MILESTONES FOR ACHIEVING COMPLIANCE WITH LDR REQUIREMENTS AT TSD MIXED WASTE UNITS. THESE MILESTONES SHALL BE BASED ON SIGNIFICANT EVENTS IDENTIFIED IN THE LDR REPORT AND ARE SHOWN IN SCHEDULES WHICH ARE UPDATED ANNUALLY AS PART OF THE REPORT. APPROPRIATE MILESTONES WILL BE INCORPORATED IN THE AGREEMENT VIA THE CHANGE PROCESS DEFINED IN SECTION 12 OF THE ACTION PLAN UPON ISSUANCE OF THE APPROVED REPORTS.	
M-26-05C	SUBMIT TO EPA AND ECOLOGY AN EVALUATION OF DEVELOPMENT STATUS OF TRITIUM TREATMENT TECHNOLOGY THAT WOULD BE PERTINENT TO THE CLEANUP AND MANAGEMENT OF TRITIATED WASTE WATER (e.g., THE 242-A EVAPORATOR PROCESS CONDENSATE LIQUID EFFLUENT) AND TRITIUM CONTAMINATED GROUNDWATER AT THE HANFORD SITE.	8/31/1997 and biennially thereafter
M-26-05D	SUBMIT TO EPA AND ECOLOGY AN EVALUATION OF DEVELOPMENT STATUS OF TRITIUM TREATMENT TECHNOLOGY THAT WOULD BE PERTINENT TO THE CLEANUP AND MANAGEMENT OF TRITIATED WASTE WATER (e.g., THE 242-A EVAPORATOR PROCESS CONDENSATE LIQUID EFFLUENT) AND TRITIUM CONTAMINATED GROUNDWATER AT THE HANFORD SITE.	8/31/1999 and biennially thereafter
M-26-05E	SUBMIT TO EPA AND ECOLOGY AN EVALUATION OF DEVELOPMENT STATUS OF TRITIUM TREATMENT TECHNOLOGY THAT WOULD BE PERTINENT TO THE CLEANUP AND MANAGEMENT OF TRITIATED WASTE WATER (e.g., THE 242-A EVAPORATOR PROCESS CONDENSATE LIQUID EFFLUENT) AND TRITIUM CONTAMINATED GROUNDWATER AT THE HANFORD SITE.	8/31/2001 and biennially thereafter

Table D. Major and Interim Milestones

Number	<u>Milestone</u>	Due Date
M-26-05F	SUBMIT TO EPA AND ECOLOGY AN EVALUATION OF DEVELOPMENT STATUS OF TRITIUM TREATMENT TECHNOLOGY THAT WOULD BE PERTINENT TO THE CLEANUP AND MANAGEMENT OF TRITIATED WASTE WATER (e.g., THE 242-A EVAPORATOR PROCESS CONDENSATE LIQUID EFFLUENT) AND TRITIUM CONTAMINATED GROUNDWATER AT THE HANFORD SITE.	8/31/2003 and biennially thereafter
M-26-05G	SUBMIT TO EPA AND ECOLOGY AN EVALUATION OF DEVELOPMENT STATUS OF TRITIUM TREATMENT TECHNOLOGY THAT WOULD BE PERTINENT TO THE CLEANUP AND MANAGEMENT OF TRITIATED WASTE WATER (e.g., THE 242-A EVAPORATOR PROCESS CONDENSATE LIQUID EFFLUENT) AND TRITIUM CONTAMINATED GROUNDWATER AT THE HANFORD SITE.	8/31/2005 and biennially thereafter
M-26-05H	SUBMIT TO EPA AND ECOLOGY AN EVALUATION OF DEVELOPMENT STATUS OF TRITIUM TREATMENT TECHNOLOGY THAT WOULD BE PERTINENT TO THE CLEANUP AND MANAGEMENT OF TRITIATED WASTE WATER (e.g., THE 242-A EVAPORATOR PROCESS CONDENSATE LIQUID EFFLUENT) AND TRITIUM CONTAMINATED GROUNDWATER AT THE HANFORD SITE.	8/31/2007 and biennially thereafter
M-32-00  LEAD AGENCY: ECOLOGY	COMPLETE IDENTIFIED DANGEROUS WASTE TANK CORRECTIVE ACTIONS.  COMPLETION OF INTERIM MILESTONE TASKS MAY IDENTIFY THE NEED FOR ADDITIONAL ACTIONS OR INTERIM MILESTONES IN THE FUTURE. THE REPORTS AND DEFICIENCY CORRECTION SCHEDULES PREPARED TO SATISFY CURRENT MILESTONES WILL BE USED TO IDENTIFY ANY APPROPRIATE NEW INTERIM MILESTONES. ANY NEW INTERIM MILESTONES WILL SUBSEQUENTLY BE ESTABLISHED VIA THE CHANGE PROCESS IN SECTION 12 OF THE ACTION PLAN.  TANK INTEGRITY ASSESSMENTS WILL NOT BE REQUIRED FOR TERMINAL CLEANOUT OF THE PLUTONIUM-URANIUM EXTRACTION PLANT, EXCEPT FOR TANKS F18, U3, AND U4. INTEGRITY ASSESSMENTS FOR TANKS F18, U3, AND U4 HAVE BEEN COMPLETED.	9/30/1999
M-32-02	COMPLETE 219-S TANK INTERIM STATUS ACTIONS.	9/30/1997
M-32-02-T02	UPGRADE EXISTING TRANSFER LINES TO MEET SECONDARY CONTAINMENT REQUIREMENTS.	9/30/1997
M-32-03	COMPLETE T PLANT TANK ACTIONS.	9/30/1999
M-32-03-T06	COMPLETE SCHEDULED UPGRADES TO T PLANT TANK SYSTEM (PROJECT W-259).	9/30/1999
M-32-06	COMPLETE 244-AR VAULT INTERIM STATUS TANK ACTIONS.	TBD

Table D. Major and Interim Milestones

Number	<u>Milestone</u>	Due Date
M-32-06-T01	COMPLETE AND SUBMIT INTEGRITY ASSESSMENT REPORT AND IDENTIFIED UPGRADES FOR 244-AR VAULT INTERIM STATUS TANK SYSTEM (EXCEPT THAT DST TRANSFER LINES THAT PENETRATE THE 244-AR VAULT WILL CONTINUE TO BE USED). PROVIDE A SCHEDULE TO ADDRESS ANY DEFICIENCIES DESCRIBED IN THE REPORT RELATED TO TANK SYSTEM COMPLIANCE.	TBD
M-32-07	COMPLETE B PLANT INTERIM STATUS TANK ACTIONS.	6/30/1996
M-32-07-T05	PERFORM OPERATIONS TO SEPARATE RADIONUCLIDES FROM THE ORGANIC SOLVENT WASTE TO SUPPORT DISPOSITION OF THE WASTE TO AN OFFSITE DISPOSAL FACILITY, OR COMPLIANT INTERIM STORAGE.	6/30/1996
M-32-08	COMPLETE GROUT INTERIM STATUS TANK ACTIONS.	TBD
M-32-08-T01	COMPLETE AND SUBMIT INTEGRITY ASSESSMENT REPORT FOR GROUT INTERIM STATUS TANK SYSTEM. COMPLETE ACTIVITIES REQUIRED TO CORRECT ANY DEFICIENCIES DESCRIBED IN THE REPORT RELATED TO TANK SYSTEM COMPLIANCE.	TBD
M-34-00	COMPLETE ACTIONS SPECIFIED BY AGREED INTERIM MILESTONES	TBD
LEAD AGENCY: ECOLOGY	RELATED TO REMEDIATION OF THE K-EAST BASINS.	
M-34-00-T02	INITIATE K-EAST BASIN FUEL ENCAPSULATION.	TBD
M-34-00-T06	INITIATE K-EAST BASIN SLUDGE ENCAPSULATION.	11/30/1996
M-34-00-T07	COMPLETE ENCAPSULATION OF THE FUEL AND SLUDGE WITHIN K-EAST BASIN.	12/31/1998
M-34-00-T08	REMOVE ALL FUEL AND SLUDGE FROM BOTH K-EAST AND K-WEST BASINS IN AN ENCAPSULATED FORM.	12/31/2002
M-34-01	CONTAMINATED K-EAST BASIN WATER WILL BE REMOVED, REPLACED, OR TREATED. THE TIMING OF THIS ACTION MUST BE COORDINATED WITH ENCAPSULATION AND THE CLEANING OF THE RESIDUAL CONTAMINATION IN THE BASIN AND (AS NOTED BELOW) THE ALTERNATIVE SELECTION IS DEPENDANT ON THE FEASIBILITY OF MOVING ENCAPSULATED K-EAST BASIN FUEL AND SLUDGE TO THE K-WEST BASIN THE CONTAMINATED WATER WILL BE DISPOSITIONED IN ACCORDANCE WITH REASONABLE AVAILABLE HANFORD SITE TREATMENT AND/OR DISPOSAL PROCESSES AND METHODS, AVAILABLE AT THE TIME OF THIS ACTION. UNLESS A BETTER OPTION BECOMES AVAILABLE, THE WATER WILL BE TRUCKED TO C-018 FOR DISPOSAL.	TBD
	IF THE K-EAST FUEL AND SLUDGE, ONCE ENCAPSULATED, CAN BE MOVED TO THE K-WEST BASIN (DETERMINED THROUGH A SEPTEMBER 1994 ENGINEERING STUDY TARGET DATE) THE	

Number	Milestone	<u>Due Date</u>
	REMOVAL AND DISPOSAL OF THE CONTAMINATED WATER SHALL BE COMPLETED BY SEPTEMBER 2000. THIS DATE IS AN EIGHTEEN MONTH ACTION, STARTING IN MARCH 1999, THREE MONTHS AFTER FUEL AND SLUDGE ENCAPSULATION IS COMPLETED. IF THE TRANSFER OF ENCAPSULATED K-EAST BASIN FUEL AND SLUDGE TO K-WEST BASIN IS INFEASIBLE, CONTAMINATED K-EAST BASIN WATER WILL BE REPLACED BY FRESH WATER, STARTING IN SEPTEMBER, 1996 AT A RATE OF TWO MILLION GALLONS/YEAR AND WILL CONTINUE UNTIL SUCH TIME THAT THE TRITIUM CONCENTRATION IN THE BASIN IS DECREASED AND IS MAINTAINED AT OR BELOW 300,000 Pci/L (THE GOAL IS TO REDUCE THE TRITIUM CONCENTRATION IN THE BASIN SUCH THAT RESULTING GROUNDWATER TRITIUM CONCENTRATION MEET DRINKING WATER CONCENTRATION STANDARDS, RECOGNIZING A LAG BETWEEN BASIN AND GROUNDWATER CONCENTRATIONS.	
M-34-02	INITIATE NEGOTIATIONS WITH ECOLOGY AND EPA ON INCORPORATION OF TRANSITION ACTIVITIES INCLUDING STABILIZATION OF THE BASINS, CONSISTENT WITH SECTION 3.1 OF THE AGREEMENT (AS AMENDED) AND THE RECORD OF DECISION REGARDING LONG-TERM STORAGE AND ULTIMATE DISPOSITION OF THE IRRADIATED FUEL. DOE WILL SUBMIT A SIGNED TRI-PARTY AGREEMENT CHANGE REQUEST PROPOSING MILESTONES FOR (1) THE COMPLETION OF REMOVAL OF FUEL AND SLUDGES FROM THE K-BASINS AND (2) THE COMPLETION OF STABILIZATION OF THE BASINS.	6/30/1996
M-35-00 LEAD AGENCY: DUAL	COMPLETE DATA MANAGEMENT ENHANCEMENTS AS NEGOTIATED AND APPROVED IN M-35-00 INTERIM MILESTONES.	TBD
M-35-08	COMPLETE NEGOTIATION OF DEFINITIVE IMPLEMENTATION SCHEDULES FOR IDENTIFIED INFORMATION ACCESS ENHANCEMENTS TO ECOLOGY AND EPA.	6/30/1996
M-35-09A	CONDUCT BIENNIAL ASSESSMENTS OF INFORMATION AND DATA ACCESS NEEDS WITH EPA AND ECOLOGY.	3/31/1998 and
	DOE WILL PROPOSE IMPLEMENTATION SCHEDULES (TPA MILESTONES) FOR ENHANCEMENTS AS A RESULT OF THE BIENNIAL ASSESSMENTS.	biennially thereafter
M-35-09B	CONDUCT BIENNIAL ASSESSMENTS OF INFORMATION AND DATA ACCESS NEEDS WITH EPA AND ECOLOGY.	3/31/2000 and
	DOE WILL PROPOSE IMPLEMENTATION SCHEDULES (TPA MILESTONES) FOR ENHANCEMENTS AS A RESULT OF THE BIENNIAL ASSESSMENTS.	biennially thereafter

Number	Milestone	Due Date
M-35-09C	CONDUCT BIENNIAL ASSESSMENTS OF INFORMATION AND DATA ACCESS NEEDS WITH EPA AND ECOLOGY.  DOE WILL PROPOSE IMPLEMENTATION SCHEDULES (TPA MILESTONES) FOR ENHANCEMENTS AS A RESULT OF THE BIENNIAL ASSESSMENTS.	3/31/2002 and biennially thereafter
M-40-00	MITIGATE/RESOLVE TANK SAFETY ISSUES FOR HIGH PRIORITY	9/30/2001
LEAD AGENCY: ECOLOGY	HIGH PRIORITY WATCH LIST TANKS ARE THOSE SINGLE-SHELL AND DOUBLE-SHELL TANKS IDENTIFIED, IN ACCORDANCE WITH SECTION 3137 OF PUBLIC LAW 101-510, WHICH HAVE A SERIOUS POTENTIAL FOR RELEASE OF HIGH-LEVEL WASTE DUE TO UNCONTROLLED INCREASES IN TEMPERATURE OR PRESSURE. THESE INCLUDE FLAMMABLE GAS GENERATING TANKS, FERROCYANIDE CONTAINING TANKS, ORGANIC/NITRATE CONTAINING TANKS, AND A HIGH HEAT PRODUCING TANK. CORRECTIVE ACTION STRATEGIES WILL BE DEVELOPED FOR THESE TANKS. THIS MILESTONE WILL BE COMPLETE WHEN MITIGATION ACTIVITIES, IF REQUIRED, HAVE BEEN IMPLEMENTED IN ALL WATCH LIST TANKS TO ENSURE SAFE STORAGE OF WASTE DURING THE INTERIM PERIOD UNTIL RETRIEVAL FOR TREATMENT AND/OR DISPOSAL OPERATIONS BEGIN. FOR THOSE SAFETY ISSUES MITIGATED PURSUANT TO THIS MILESTONE, SAFETY RESOLUTION WILL BE DEPENDENT UPON FINAL TREATMENT OF THE WASTE. MITIGATION WILL ALLOW, HOWEVER, THE CHARACTERIZATION RETRIEVAL, ETC., OF THESE WASTES PRIOR TO FINAL TREATMENT. SOME SAFETY ISSUES MAY ALSO BE RESOLVED IF (1) RESOLUTION OUT-OF-TANK IS NOT REQUIRED, OR (2) RESOLUTION OUT-OF-TANK WITH OR WITHOUT TREATMENT TAKES PLACE WITHIN THE TIME PERIOD OF THIS MILESTONE.	
	THIS MILESTONE WILL BE REVIEWED ON AN ANNUAL BASIS TO IDENTIFY ANY POTENTIAL SCHEDULE ENHANCEMENTS.	
M-40-09	CLOSE ALL UNREVIEWED SAFETY QUESTIONS (USQ) FOR DOUBLE- SHELL AND SINGLE-SHELL TANKS.	9/30/1998
	FOUR UNREVIEWED SAFETY QUESTIONS (USQ) HAVE BEEN IDENTIFIED ON HANFORD SINGLE-SHELL AND DOUBLE-SHELL WASTE TANKS AS OF SEPTEMBER 30, 1993: HIGH FLAMMABLE GAS CONCENTRATIONS, POTENTIALLY EXPLOSIVE MIXTURES OF FERROCYANIDE, POTENTIAL FOR NUCLEAR CRITICALITY, AND EXISTENCE OF A SEPARABLE ORGANIC PHASE (FLOATING LAYER). FOR EACH USQ, DATA WILL BE COLLECTED AND SAFETY DOCUMENTATION, INCLUDING NEW OPERATING SAFETY ENVELOPES AND APPROPRIATE WORK CONTROLS, WILL BE SUBMITTED FOR APPROVAL. THIS WILL BE FOLLOWED BY A USQ SCREENING AND EVALUATION SUBMITTED FOR APPROVAL, AND FINALLY BY A RECOMMENDATION FOR USQ CLOSURE. THE RECOMMENDATION FOR CLOSURE OF A USQ WILL BE TRANSMITTED	

Number

#### Milestone

Due Date

TO RL WHEN A TANK, GROUP OF TANKS, OR ALL TANKS HAVE BEEN SUFFICIENTLY REVIEWED TO REMOVE THE USQ RESTRICTIONS. THE ANTICIPATED ORDER OF USQ CLOSURE IS AS FOLLOWS: FIRST 6 FERROCYANIDE TANKS, 241-C-103 ORGANIC LAYER, REMAINING FERROCYANIDE TANKS, CRITICALITY, 241-SY FARM FLAMMABLE GAS TANKS, 241-AW-101 FLAMMABLE GAS TANKS, 241-AN FARM FLAMMABLE GAS TANKS, AND 18 SINGLE-SHELL FLAMMABLE GAS TANKS.

THE PARTIES RECOGNIZE THE EXISTENCE OF A USQ DOES NOT PROHIBIT THE CONTINUATION OR INITIATION OF WORK IN THE TANK FARMS.

M-40-10

COMPLETE VAPOR SPACE MONITORING FOR ALL FLAMMABLE GAS GENERATING TANKS.

1/31/1997

DESIGN, PROCURE, AND FABRICATE STANDARD HYDROGEN MONITORING SYSTEMS (SHMS) FOR ALL UNREVIEWED SAFETY QUESTION (USQ) FLAMMABLE GAS GENERATING TANKS. PREPARE ALL REQUIRED SAFETY AND ENVIRONMENTAL DOCUMENTATION FOR TANK INTRUSIVE WORK ON A TANK BY TANK, OR GROUP OF TANKS, BASIS. INSTALL THE SHMSs AND OBTAIN VAPOR SPACE GRAB SAMPLES. ANALYZE SAMPLES USING A HIGH SENSITIVITY MASS SPECTROMETER TO DETERMINE THE CONCENTRATIONS OF FLAMMABLE GASES (HYDROGEN, NITROUS OXIDE, AMMONIA) FOR ALL TANKS, AND THE BACKGROUND GAS COMPOSITIONS FOR THE DOUBLE-SHELL TANKS THAT ENTRAP AND PERIODICALLY RELEASE GAS. THE VAPOR SPACE OF EACH TANK WILL BE OBSERVED OVER A SUFFICIENT PERIOD OF TIME TO MAKE DECISIONS REGARDING RESOLUTION OF THE SAFETY ISSUE. A REPORT, WITH THE ANALYTICAL DATA FOR EACH TANK, WILL BE PREPARED, CLEARED FOR PUBLIC RELEASE, AND TRANSMITTED TO RL FOR SUBSEQUENT ISSUANCE TO THE WASHINGTON DEPARTMENT OF ECOLOGY AND ENVIRONMENTAL PROTECTION AGENCY.

MONITORING WILL CONTINUE AFTER THE INITIAL REPORT.

M-40-12

RESOLVE NUCLEAR CRITICALITY SAFETY ISSUE.

9/30/1999

RESOLVE THE POTENTIAL FOR NUCLEAR CRITICALITY SAFETY ISSUE BY PROVIDING SUFFICIENT MONITORING, ANALYSIS, AND REVISION OF APPROPRIATE SAFETY DOCUMENTATION. THESE ACTIVITIES MUST ADDRESS THE VARIOUS STAGES OF WASTE TRANSFERENCE AND THE POSSIBILITY FOR CHANGES IN THE POTENTIAL FOR NUCLEAR CRITICALITY INCIDENTS DURING WASTE TRANSFERS.

Number	Milestone	Due Date
M-41-00	COMPLETE SINGLE-SHELL TANK INTERIM STABILIZATION.	9/30/2000
LEAD AGENCY: ECOLOGY	COMPLETE INTERIM STABILIZATION ACTIVITIES FOR ALL SINGLE-SHELL TANKS EXCEPT 241-C-106 (TO BE RETRIEVED IN ACCORDANCE WITH MILESTONE M-45-03). COMPLETE INTRUSION PREVENTION FOR ALL SINGLE-SHELL TANKS EXCEPT 241-C-106.	
	THIS IS DEPENDENT UPON THE FOLLOWING ASSUMPTIONS:	
	(1) SAFETY STUDIES WILL BE COMPLETED WITH THE OBJECTIVE OF ALLOWING PUMPING IN ACCORDANCE WITH INTERIM MILESTONES.	
	(2) WORK COMMENCES IN THE TANK FARMS ON OCTOBER 1, 1993, FOR INTERIM STABILIZATION PREPARATIONS, AS REQUIRED BY THE MILESTONE SCHEDULE. DURING THE STAND DOWN IN TANK FARMS, SCHEDULES FOR THE FOLLOWING INTERIM MILESTONES MAY BE AFFECTED: M-41-01, M-41-02, M-41-10, M-41-15 AND M-41-16. EVERY EFFORT WILL BE MADE TO RECOVER THE ORIGINAL SCHEDULE AS SPECIFIED BELOW.	
	INTERIM MILESTONES FOR START OF PUMPING AND TARGET MILESTONES FOR COMPLETION FOR EACH GROUP OF TANKS WILL BE REVIEWED AND AFFIRMED ANNUALLY WITH ECOLOGY AND EPA. UPON START OF PUMPING, EFFORTS TO CONTINUE PUMPING WILL BE CONTINUOUSLY SUPPORTED SO THAT PUMPING IS CONDUCTED AS EXPEDITIOUSLY AS PRACTICAL. IF PUMPING IS INTERRUPTED TO A DEGREE THAT JEOPARDIZES THE TARGET MILESTONE, THE UNIT (PROJECT) MANAGERS SHALL MEET IN AN EFFORT TO AGREE ON A RECOVERY PLAN. IF SUCH AN AGREEMENT CANNOT BE MADE AT THE UNIT (PROJECT) MANAGER LEVEL, A FORMAL RECOVERY PLAN WILL BE PREPARED AND SUBMITTED TO ECOLOGY AND EPA FOR APPROVAL THAT SUPPORTS THE MAJOR MILESTONE DATE OF SEPTEMBER 2000, IF TECHNICALLY ACHIEVABLE.	
M-41-01-T02	COMPLETE INTERIM STABILIZATION OF 5 SINGLE-SHELL TANKS.	11/30/1995
M-41-08	START INTERIM STABILIZATION OF 1 NON-WATCH LIST TANK IN 241-U TANK FARM.	8/31/1996
M-41-08-T01	COMPLETE INTERIM STABILIZATION OF 1 NON-WATCH LIST TANK IN 241-U TANK FARM.	4/30/1997
M-41-09	START INTERIM STABILIZATION OF 7 NON-WATCH LIST TANKS IN 241-S TANK FARM.	1/31/1996
M-41-09-T01	COMPLETE INTERIM STABILIZATION OF 7 NON-WATCH LIST TANKS IN 241-S TANK FARM.	4/30/1997
M-41-10	START INTERIM STABILIZATION OF 2 FLAMMABLE GAS WATCH LIST TANKS IN 241-A/AX TANK FARMS.	4/30/1996

Number	Milestone	<u>Due Date</u>
M-41-10-T01	COMPLETE INTERIM STABILIZATION OF 2 FLAMMABLE GAS WATCH LIST TANKS IN 241-A/AX TANK FARMS.	12/31/1998
M-41-11	START INTERIM STABILIZATION OF 4 FLAMMABLE GAS WATCH LIST TANKS IN 241-U TANK FARMS.	8/31/1996
M-41-11-T01	COMPLETE INTERIM STABILIZATION OF 4 FLAMMABLE GAS WATCH LIST TANKS IN 241-U TANK FARMS.	9/30/1997
M-41-12-T01	COMPLETE INTERIM STABILIZATION OF 241-BX-106, 241-BY-103 AND 241-BY-106.	12/31/1997
M-41-13	START INTERIM STABILIZATION OF 3 ORGANIC WATCH LIST TANKS IN 241-U TANK FARM.	8/31/1996
M-41-13-T01	COMPLETE INTERIM STABILIZATION OF 3 ORGANIC WATCH LIST TANKS IN 241-U TANK FARM.	1/31/1998
M-41-14	START INTERIM STABILIZATION OF 7 FLAMMABLE GAS WATCH LIST TANKS IN 241-S/SX TANK FARMS.	6/30/1997
M-41-14-T01	COMPLETE INTERIM STABILIZATION OF 7 FLAMMABLE GAS WATCH LIST TANKS IN 241-S/SX TANK FARMS.	11/30/1999
M-41-15	START INTERIM STABILIZATION OF 2 ORGANIC WATCH LIST TANKS IN 241-S/SX TANK FARMS.	6/30/1997
M-41-15-T01	COMPLETE INTERIM STABILIZATION OF 2 ORGANIC WATCH LIST TANKS IN 241-S/SX TANK FARMS.	3/31/1999
M-41-16	START INTERIM STABILIZATION OF 1 NON-WATCH LIST TANK IN 241-T TANK FARM.	3/30/1998
M-41-16-T01	COMPLETE INTERIM STABILIZATION OF 1 NON-WATCH LIST TANK IN 241-T TANK FARM.	8/31/1998
M-41-17-T01	COMPLETE INTERIM STABILIZATION OF 1 FERROCYANIDE WATCH LIST TANK IN 241-T TANK FARM.	5/31/1998
M-41-18	START INTERIM STABILIZATION OF 1 FLAMMABLE GAS WATCH LIST TANK IN 241-T TANK FARM.	4/30/1998
M-41-18-T01	COMPLETE INTERIM STABILIZATION OF 1 FLAMMABLE GAS WATCH LIST TANK IN 241-T. TANK FARM.	7/31/1998
M-41-19	START INTERIM STABILIZATION OF 1 ORGANIC WATCH LIST TANK IN 241-C-TANK FARM.	9/30/1998
M-41-19-T01	COMPLETE INTERIM STABILIZATION OF 1 ORGANIC WATCH LIST TANK IN 241-C-TANK FARM.	3/31/1999

Table D. Major and Interim Milestones

Number	Milestone	Due Date
M-42-00	PROVIDE ADDITIONAL DOUBLE-SHELL TANK CAPACITY.	TBD
LEAD AGENCY: ECOLOGY		
M-43-00	COMPLETE TANK FARM UPGRADES.	6/30/2005
LEAD AGENCY: ECOLOGY		
M-43-01	COMPLETE PROJECT W-030 TANK FARM VENTILATION UPGRADES	12/31/1996
M-43-01B	COMPLETE CONSTRUCTION OF W-030	10/31/1996
M-43-01C	BEGIN OPERATION OF W-030	12/31/1996
M-43-03	PROVIDE THE WASHINGTON STATE DEPARTMENT OF ECOLOGY AND DEPARTMENT OF HEALTH THE RESULTS OF THE SINGLE SHELL TANK VENTILATION UPGRADES NEEDS ANALYSIS.	3/31/1997
M-43-07	COMPLETE PROJECT W-058 REPLACEMENT OF CROSS-SITE TRANSFER SYSTEM.	2/28/1998
M-43-07B	COMPLETE CONSTRUCTION OF W-058.	8/31/1997
M-43-07C	CROSS SITE TRANSFER SYSTEM OPERATIONAL.	2/28/1998
M-43-10	START DEFINITIVE DESIGN FOR PROJECT W-314.	1/31/1997
M-43-11	PROVIDE THE W-314 PROJECT CONSTRUCTION SCHEDULE TO ECOLOGY.	9/30/1998
M-43-12	START CONSTRUCTION FOR UPGRADES IN THE FIRST TANK FARM.	6/30/1999
M-43-13	START CONSTRUCTION FOR UPGRADES IN THE SECOND TANK FARM.	6/30,/2000
M-43-14	START CONSTRUCTION FOR UPGRADES IN THE THIRD TANK FARM.	3/31/2001
M-43-15	START CONSTRUCTION FOR UPGRADES N THE FOURTH TANK FARM.	3/31/2002
M-43-16	START CONSTRUCTION FOR UPGRADES IN 1 HE FIFTH TANK FARM.	6/30/2003

Table D. Major and Interim Milestones

Number	Milestone	<u>Due Date</u>
M-44-00  LEAD AGENCY: ECOLOGY	ISSUE TANK CHARACTERIZATION REPORTS (TCRs) BASED ON PROCESS KNOWLEDGE, PRIOR CHARACTERIZATION DATA, AND VALIDATED EMPIRICAL DATA ACQUIRED AFTER MAY 1989 FOR 177 HANFORD HIGH LEVEL WASTE TANKS. PROVIDE OFFSITE ACCESS TO ELECTRONIC DATABASE(S) CONTAINING TANK CHARACTERIZATION INFORMATION THROUGH THE TANK CHARACTERIZATION DATABASE (TCD) AND HANFORD ENVIRONMENTAL INFORMATION SYSTEM (HEIS) THROUGH THE TANK WASTE INFORMATION NETWORK SYSTEM (TWINS) OR APPROVED ANALOGUES FOR 177 HLW TANKS.	9/30/1999
	ALL ISSUED TCRs WILL BE UPDATED QUARTERLY AS NEEDED DUE TO ADDITION AND/OR REMOVAL OF TANK WASTES AND AS NEW INFORMATION IS OBTAINED.	
	VALIDATED DATA PACKAGES ARE TO BE PLACED IN THE ADMINISTRATIVE RECORD.	
M-44-01C	SUBMIT A DRAFT COPY OF THE TWRS TANK WASTE ANALYSIS PLANS (TWAP) AND TANK CHARACTERIZATION PLANS (TCPs) REVISIONS, UPDATES, AND ADDITIONS ANNUALLY TO ECOLOGY AND EPA.	5/31/1996 and annually thereafter
M-44-01D	SUBMIT A DRAFT COPY OF THE TWRS TANK WASTE ANALYSIS PLANS (TWAP) AND TANK CHARACTERIZATION PLANS (TCPs) REVISIONS, UPDATES, AND ADDITIONS ANNUALLY TO ECOLOGY AND EPA.	5/31/1997 and annually thereafter
M-44-01E	SUBMIT A DRAFT COPY OF THE TWRS TANK WASTE ANALYSIS PLANS (TWAP) AND TANK CHARACTERIZATION PLANS (TCPs) REVISIONS, UPDATES, AND ADDITIONS ANNUALLY TO ECOLOGY AND EPA.	5/31/1998 and annually thereafter
M-44-01F	SUBMIT A DRAFT COPY OF THE TWRS TANK WASTE ANALYSIS PLANS (TWAP) AND TANK CHARACTERIZATION PLANS (TCPs) REVISIONS, UPDATES, AND ADDITIONS ANNUALLY TO ECOLOGY AND EPA.	5/31/1999 and annually thereafter
M-44-02C	SUBMIT TWAP AND TCRS ANNUALLY TO ECOLOGY AND EPA FOR APPROVAL. THE TWAP WILL COVER SAFETY, RETRIEVAL, PRETREATMENT, AND OTHER PROCESSING NEEDS. THE TWAP WILL IDENTIFY SAMPLING AND ANALYSIS ACTIVITIES PROJECTED FOR THE FOLLOWING FISCAL YEAR. THE TWAP WILL DESCRIBE THE TCPS TO BE ISSUED FOR THE YEAR. THE TCPS WILL COVER SAMPLING AND ANALYSIS ACTIVITIES FOR EACH DST AND SST TO BE CHARACTERIZED IN THE FOLLOWING FISCAL YEAR. THE TWAP WILL ALSO IDENTIFY THE FOLLOWING YEAR'S TORS TO BE SUBMITTED AND ON WHAT TYPE OF DATA THEY WILL BE BASED. THE TWAP WILL SPECIFY THE CONTENTS OF THESE TCRS. THE TWAP AND TCPS WILL BE DEVELOPED VIA A DQO PROCESS INVOLVING EPA, ECOLOGY, AND USDOE PRIOR TO IMPLEMENTATION. IF THE THREE PARTIES DO NOT AGREE ON ANY INDIVIDUAL TCP THEN ECOLOGY WILL ISSUE A FINAL	8/31/1996 and annually thereafter

Number

#### <u>Milestone</u>

Due Date

DECISION BY SEPTEMBER 30 OF THAT YEAR FOR THE SCOPE OF THE PLAN. USDOE WILL IMPLEMENT THE FINAL DECISION. IF USDOE DISPUTES THE FINAL DECISION, THE ECOLOGY FINAL DECISION WILL BE IMPLEMENTED DURING THE DISPUTE RESOLUTION PROCESS.

M-44-02D

SUBMIT TWAP AND TCRs ANNUALLY TO ECOLOGY AND EPA FOR APPROVAL. THE TWAP WILL COVER SAFETY, RETRIEVAL, PRETREATMENT, AND OTHER PROCESSING NEEDS. THE TWAP WILL IDENTIFY SAMPLING AND ANALYSIS ACTIVITIES PROJECTED FOR THE FOLLOWING FISCAL YEAR. THE TWAP WILL DESCRIBE THE TCPs TO BE ISSUED FOR THE YEAR. THE TCPs WILL COVER SAMPLING AND ANALYSIS ACTIVITIES FOR EACH DST AND SST TO BE CHARACTERIZED IN THE FOLLOWING FISCAL YEAR. THE TWAP WILL ALSO IDENTIFY THE FOLLOWING YEAR'S TCRS TO BE SUBMITTED AND ON WHAT TYPE OF DATA THEY WILL BE BASED. THE TWAP WILL SPECIFY THE CONTENTS OF THESE TCRs. THE TWAP AND TCPs WILL BE DEVELOPED VIA A DQO PROCESS INVOLVING EPA, ECOLOGY, AND USDOE PRIOR TO IMPLEMENTATION. IF THE THREE PARTIES DO NOT AGREE ON ANY INDIVIDUAL TCP THEN ECOLOGY WILL ISSUE A FINAL DECISION BY SEPTEMBER 30 OF THAT YEAR FOR THE SCOPE OF THE PLAN. USDOE WILL IMPLEMENT THE FINAL DECISION. IF USDOE DISPUTES THE FINAL DECISION, THE ECOLOGY FINAL DECISION WILL BE IMPLEMENTED DURING THE DISPUTE RESOLUTION PROCESS.

8/31/1997 and annually thereafter

M-44-02E

SUBMIT TWAP AND TCRs ANNUALLY TO ECOLOGY AND EPA FOR APPROVAL. THE TWAP WILL COVER SAFETY, RETRIEVAL, PRETREATMENT, AND OTHER PROCESSING NEEDS. THE TWAP WILL IDENTIFY SAMPLING AND ANALYSIS ACTIVITIES PROJECTED FOR THE FOLLOWING FISCAL YEAR. THE TWAP WILL DESCRIBE THE TCPs TO BE ISSUED FOR THE YEAR. THE TCPs WILL COVER SAMPLING AND ANALYSIS ACTIVITIES FOR EACH DST AND SST TO BE CHARACTERIZED IN THE FOLLOWING FISCAL YEAR. THE TWAP WILL ALSO IDENTIFY THE FOLLOWING YEAR'S TCRs TO BE SUBMITTED AND ON WHAT TYPE OF DATA THEY WILL BE BASED. THE TWAP WILL SPECIFY THE CONTENTS OF THESE TCRs. THE TWAP AND TCPS WILL BE DEVELOPED VIA A DQO PROCESS INVOLVING EPA, ECOLOGY, AND USDOE PRIOR TO IMPLEMENTATION. IF THE THREE PARTIES DO NOT AGREE ON ANY INDIVIDUAL TCP THEN ECOLOGY WILL ISSUE A FINAL DECISION BY SEPTEMBER 30 OF THAT YEAR FOR THE SCOPE OF THE PLAN. USDOE WILL IMPLEMENT THE FINAL DECISION. IF USDOE DISPUTES THE FINAL DECISION, THE ECOLOGY FINAL DECISION WILL BE IMPLEMENTED DURING THE DISPUTE RESOLUTION PROCESS.

8/31/1998 and annually thereafter

Table D. Major and Interim Milestones

Number	Milestone	<u>Due Date</u>
M-44-02F	SUBMIT TWAP AND TCRS ANNUALLY TO ECOLOGY AND EPA FOR APPROVAL. THE TWAP WILL COVER SAFETY, RETRIEVAL, PRETREATMENT, AND OTHER PROCESSING NEEDS. THE TWAP WILL IDENTIFY SAMPLING AND ANALYSIS ACTIVITIES PROJECTED FOR THE FOLLOWING FISCAL YEAR. THE TWAP WILL DESCRIBE THE TCPS TO BE ISSUED FOR THE YEAR. THE TCPS WILL COVER SAMPLING AND ANALYSIS ACTIVITIES FOR EACH DST AND SST TO BE CHARACTERIZED IN THE FOLLOWING FISCAL YEAR. THE TWAP WILL ALSO IDENTIFY THE FOLLOWING YEAR'S TCRS TO BE SUBMITTED AND ON WHAT TYPE OF DATA THEY WILL BE BASED. THE TWAP WILL SPECIFY THE CONTENTS OF THESE TCRS. THE TWAP AND TCPS WILL BE DEVELOPED VIA A DQO PROCESS INVOLVING EPA, ECOLOGY, AND USDOE PRIOR TO IMPLEMENTATION. IF THE THREE PARTIES DO NOT AGREE ON ANY INDIVIDUAL TCP THEN ECOLOGY WILL ISSUE A FINAL DECISION BY SEPTEMBER 30 OF THAT YEAR FOR THE SCOPE OF THE PLAN. USDOE WILL IMPLEMENT THE FINAL DECISION. IF USDOE DISPUTES THE FINAL DECISION, THE ECOLOGY FINAL DECISION WILL BE IMPLEMENTED DURING THE DISPUTE RESOLUTION PROCESS.	8/31/1999 and annually thereafter
M-44-09	ISSUE 40 TCRs IN ACCORDANCE WITH THE APPROVED TCPs. COMPLETE INPUT OF CHARACTERIZATION INFORMATION FOR 40 HLW TANKS TO ELECTRONIC DATABASE(S).	9/30/1996
M-44-10	ISSUE 40 TCRs IN ACCORDANCE WITH THE APPROVED TCPs. COMPLETE INPUT OF CHARACTERIZATION INFORMATION FOR 40 HLW TANKS TO ELECTRONIC DATABASE(S).	9/30/1997
M-44-11	ISSUE 30 TCRs IN ACCORDANCE WITH THE APPROVED TCPs. COMPLETE INPUT OF CHARACTERIZATION INFORMATION FOR 30 HLW TANKS TO ELECTRONIC DATABASE(S).	9/30/1998
M-44-12	ISSUE 14 TCRs IN ACCORDANCE WITH THE APPROVED TCPs. COMPLETE INPUT OF CHARACTERIZATION INFORMATION FOR 14 HLW TANKS TO ELECTRONIC DATABASE(S).	9/30/1999
M-45-00	COMPLETE CLOSURE OF ALL SINGLE SHELL TANK FARMS.	9/30/2024
LEAD AGENCY: ECOLOGY	CLOSURE WILL FOLLOW RETRIEVAL OF AS MUCH TANK WASTE AS TECHNICALLY POSSIBLE, WITH TANK WASTE RESIDUES NOT TO EXCEED 360 CUBIC FEET (CU. FT.) IN EACH OF THE 100 SERIES TANKS, 30 CU. FT. IN EACH OF THE 200 SERIES TANKS, OR THE LIMIT OF WASTE RETRIEVAL TECHNOLOGY CAPABILITY, WHICHEVER IS LESS. IF THE DOE BELIEVES THAT WASTE RETRIEVAL TO THESE LEVELS IS NOT POSSIBLE FOR A TANK, THEN DOE WILL SUBMIT A DETAILED EXPLANATION TO EPA AND ECOLOGY EXPLAINING WHY THESE LEVELS CANNOT BE ACHIEVED, AND SPECIFYING THE QUANTITIES OF WASTE THAT THE DOE PROPOSES TO LEAVE IN THE TANK. THE REQUEST WILL BE APPROVED OR DISAPPROVED BY EPA AND ECOLOGY ON A TANK-BY-TANK BASIS. PROCEDURES FOR MODIFYING THE RETRIEVAL CRITERIA LISTED ABOVE, AND FOR	

Number

Milestone

Due Date

PROCESSING WAIVER REQUESTS ARE OUTLINED IN THE APPENDIX TO THIS CHANGE REQUEST.

FOLLOWING COMPLETION OF RETRIEVAL, SIX OPERABLE UNITS (TANK FARMS), AS DESCRIBED IN APPENDIX C (200-BP-7, 200-PO-3, 200-RO-4, 200-TP-5, 200-TP-6, 200-UP-3), WILL BE REMEDIATED IN ACCORDANCE WITH THE APPROVED CLOSURE PLANS. FINAL CLOSURE OF THE OPERABLE UNITS (TANK FARMS) SHALL BE DEFINED AS REGULATORY APPROVAL OF COMPLETION OF CLOSURE ACTIONS AND COMMENCEMENT OF POST-CLOSURE ACTIONS.

FOR THE PURPOSES OF THIS AGREEMENT ALL UNITS LOCATED WITHIN THE BOUNDARY OF EACH TANK FARM WILL BE CLOSED IN ACCORDANCE WITH WAC 173-303-610. THIS INCLUDES CONTAMINATED SOIL AND ANCILLARY EQUIPMENT THAT WERE PREVIOUSLY DESIGNATED AS RCRA PAST PRACTICE UNITS. ADOPTING THIS APPROACH WILL ENSURE EFFICIENT USE OF FUNDING AND WILL REDUCE POTENTIAL DUPLICATION OF EFFORT VIA APPLICATION OF DIFFERENT REGULATORY REQUIREMENTS: WAC 173-303-610 FOR CLOSURE OF THE TSD UNITS AND RCRA SECTION 3004(U) FOR REMEDIATION OF RCRA PAST PRACTICE UNITS.

ALL PARTIES RECOGNIZE THAT THE RECLASSIFICATION OF PREVIOUSLY IDENTIFIED RCRA PAST PRACTICE UNITS TO ANCILLARY EQUIPMENT ASSOCIATED WITH THE TSD UNIT IS STRICTLY FOR APPLICATION OF A CONSISTENT CLOSURE APPROACH. UPGRADES TO PREVIOUSLY CLASSIFIED RCRA PAST PRACTICE UNITS TO ACHIEVE COMPLIANCE WITH RCRA OR DANGEROUS WASTE INTERIM STATUS TECHNICAL STANDARDS FOR TANK SYSTEMS (I.E., SECONDARY CONTAINMENT, INTEGRITY ASSESSMENTS, ETC.) WILL NOT BE MANDATED AS A RESULT OF THIS ACTION. HOWEVER, ANY EQUIPMENT MODIFIED OR REPLACED WILL MEET INTERIM STATUS STANDARDS. IN EVALUATING CLOSURE OPTIONS FOR SINGLE-SHELL TANKS, CONTAMINATED SOIL, AND ANCILLARY EQUIPMENT, ECOLOGY AND EPA WILL CONSIDER COST, TECHNICAL PRACTICABILITY, AND POTENTIAL EXPOSURE TO RADIATION. CLOSURE OF ALL UNITS WITHIN THE BOUNDARY OF A GIVEN TANK FARM WILL BE ADDRESSED IN A CLOSURE PLAN FOR THE SINGLE-SHELL TANKS.

M-45-02

SUBMIT ANNUAL UPDATES TO SST RETRIEVAL SEQUENCE DOCUMENT.

9/30/2017

THIS PROVIDES FOR AN ANNUAL UPDATE OF AN SST RETRIEVAL SEQUENCE DOCUMENT THAT WILL DEFINE THE TANK SELECTION CRITERIA, TANK SELECTION RATIONALE, REFERENCE RETRIEVAL METHOD(S) FOR EACH TANK, AND THE ESTIMATED RETRIEVAL SCHEDULES. THE ANNUAL UPDATES WILL BE SUBMITTED TO ECOLOGY FOR APPROVAL.

Number	Milestone	<u>Due Date</u>
M-45-02A	SUBMIT INITIAL SST RETRIEVAL SEQUENCE DOCUMENT FOR ECOLOGY APPROVAL.	9/30/1996
M-45-02B	SUBMIT ANNUAL UPDATE OF SST RETRIEVAL SEQUENCE DOCUMENT FOR ECOLOGY APPROVAL.	9/30/1997
M-45-02C	SUBMIT ANNUAL UPDATE OF SST RETRIEVAL SEQUENCE DOCUMENT FOR ECOLOGY APPROVAL.	9/30/1998
M-45-02D	SUBMIT ANNUAL UPDATE OF SST RETRIEVAL SEQUENCE DOCUMENT FOR ECOLOGY APPROVAL.	9/30/1999
M-45-02E	SUBMIT ANNUAL UPDATE OF SST RETRIEVAL SEQUENCE DOCUMENT FOR ECOLOGY APPROVAL.	9/30/2000
M-45-02F	SUBMIT ANNUAL UPDATE OF SST RETRIEVAL SEQUENCE DOCUMENT FOR ECOLOGY APPROVAL.	9/30/2001
M-45-02G	SUBMIT ANNUAL UPDATE OF SST RETRIEVAL SEQUENCE DOCUMENT FOR ECOLOGY APPROVAL.	9/30/2002
M-45-02H	SUBMIT ANNUAL UPDATE OF SST RETRIEVAL SEQUENCE DOCUMENT FOR ECOLOGY APPROVAL.	9/30/2003
M-45-02I	SUBMIT ANNUAL UPDATE OF SST RETRIEVAL SEQUENCE DOCUMENT FOR ECOLOGY APPROVAL.	9/30/2004 and annually thereafter
M-45-03-T01	COMPLETE SST WASTE RETRIEVAL DEMONSTRATION.	9/30/2003
	INITIATE AND COMPLETE A FULL SCALE DEMONSTRATION OF SST RETRIEVAL TECHNOLOGY. THIS DEMONSTRATION WILL BE CONSIDERED COMPLETE WHEN NO LESS THAN 99% OF THE WASTE INVENTORY IS REMOVED FROM THE TANK.	
M-45-03-T02	INITIATE FINAL RETRIEVAL DEMONSTRATION OF C-106.	6/30/2002
	INITIATE FINAL RETRIEVAL OF TANK 241-C-106 TO COMPLETE INITIAL DEMONSTRATION OF SST RETRIEVAL TECHNOLOGIES.	
M-45-03A	INITIATE SLUICING RETRIEVAL OF C-106.	10/31/1997
	INITIATE SLUICING RETRIEVAL OF TANK 241-C-106 TO RESOLVE THE HIGH-HEAT SAFETY ISSUE AND DEMONSTRATE WASTE RETRIEVAL.	
M-45-04-T01	PROVIDE INITIAL SINGLE-SHELL TANK RETRIEVAL SYSTEMS.	11/30/2003
	COMPLETE CONSTRUCTION AND RELATED TESTING OF THE INITIAL SST RETRIEVAL SYSTEMS. THIS MILESTONE WILL PROVIDE RETRIEVAL SYSTEMS FOR AN ENTIRE SINGLE-SHELL TANK FARM OR AN EQUIVALENT NUMBER OF TANKS.	
M-45-04-T02	COMPLETE DESIGN FOR THE INITIAL SST RETRIEVAL SYSTEMS.	12/31/2000

Table D. Major and Interim Milestones

Number	Milestone	<u>Due Date</u>
M-45-04-T03	COMPLETE CONSTRUCTION FOR THE INITIAL SST RETRIEVAL SYSTEMS.	6/30/2003
M-45-04A	COMPLETE CONCEPTUAL DESIGN FOR THE INITIAL SST RETRIEVAL SYSTEMS.	4/30/1997
M-45-05	RETRIEVE WASTE FROM ALL REMAINING SINGLE-SHELL TANKS.	9/30/2018
	COMPLETE WASTE RETRIEVAL FROM ALL REMAINING SINGLE- SHELL TANKS. RETRIEVAL STANDARDS AND COMPLETION DEFINITIONS ARE PROVIDED UNDER THE MAJOR MILESTONE. THE SCHEDULE REFLECTS RETRIEVAL ACTIVITIES ON A FARM-BY -FARM BASIS. IT ALSO ALLOWS FLEXIBILITY TO RETRIEVE TANKS FROM VARIOUS FARMS IF DESIRED TO SUPPORT SAFETY ISSUE RESOLUTION, PRETREATMENT OR DISPOSAL FEED REQUIREMENTS, OR OTHER PRIORITIES.	
M-45-05-T01	INITIATE TANK WASTE RETRIEVAL FROM ONE SINGLE-SHELL TANK.	12/31/2003
M-45-05-T02	INITIATE TANK RETRIEVAL FROM TWO ADDITIONAL SINGLE-SHELL TANKS.	9/30/2004
M-45-05-T03	INITIATE TANK RETRIEVAL FROM THREE ADDITIONAL SINGLE- SHELL TANKS.	9/30/2005
M-45-05-T04	INITIATE TANK RETRIEVAL FROM FOUR ADDITIONAL SINGLE- SHELL TANKS.	9/30/2006
M-45-05-T05	INITIATE TANK RETRIEVAL FROM FIVE ADDITIONAL SINGLE-SHELL TANKS.	9/30/2007
M-45-05-T06	INITIATE TANK RETRIEVAL FROM FIVE ADDITIONAL SINGLE-SHELL TANKS.	9/30/2008
M-45-05-T07	INITIATE TANK RETRIEVAL FROM SEVEN ADDITIONAL SINGLE- SHELL TANKS.	9/30/2009
M-45-05-T08	INITIATE TANK RETRIEVAL FROM EIGHT ADDITIONAL SINGLE- SHELL TANKS.	9/30/2010
M-45-05-T09	INITIATE TANK RETRIEVAL FROM TEN ADDITIONAL SINGLE- SHELL TANKS.	9/30/2011
M-45-05-T10	INITIATE TANK RETRIEVAL FROM 12 ADDITIONAL SINGLE-SHELL TANKS.	9/30/2012
M-45-05-T11	INITIATE TANK RETRIEVAL FROM 14 ADDITIONAL SINGLE-SHELL TANKS.	9/30/2013
M-45-05-T12	INITIATE TANK RETRIEVAL FROM 17 ADDITIONAL SINGLE-SHELL TANKS.	9/30/2014

Number	Milestone	<u>Due Date</u>
M-45-05-T13	INITIATE TANK RETRIEVAL FROM 20 ADDITIONAL SINGLE-SHELL TANKS.	9/30/2015
M-45-05-T14	INITIATE TANK RETRIEVAL FROM 20 ADDITIONAL SINGLE-SHELL TANKS.	9/30/2016
M-45-05-T15	INITIATE TANK RETRIEVAL FROM 20 ADDITIONAL SINGLE-SHELL TANKS.	9/30/2017
M-45-06	THE SINGLE-SHELL TANK CLOSURE WORK PLAN WILL BE PREPARED DESCRIBING THE WORK INTEGRATION PROCESS FOR SINGLE-SHELL TANK CLOSURES AND STATUS OF WORK AND INTEGRATION PROCESS. KNOWN ISSUES WILL BE IDENTIFIED AND AN EXPLANATION WILL BE GIVEN ON HOW THESE ISSUES ARE BEING ADDRESSED. THIS WORK PLAN WILL BE PROVIDED TO ECOLOGY FOR REVIEW/COMMENT AND WILL BE USED AS A ROADMAP FOR CLOSURE OF THE SINGLE-SHELL TANKS. BECAUSE OF THE UNCERTAINTIES IN THE CLOSURE PROCESS, THE WORK PLAN WILL EVOLVE AS THESE UNCERTAINTIES ARE RESOLVED AND EVENTUALLY IT WILL BECOME THE SST CLOSURE/POST-CLOSURE PLAN(S) ISSUED FOR ECOLOGY'S APPROVAL UNDER SUBSEQUENT TPA INTERIM MILESTONES. MAJOR WORK AREAS COVERED IN THE WORK PLAN WILL INCLUDE WASTE RETRIEVAL, OPERABLE UNITS CHARACTERIZATION, TECHNOLOGIES DEVELOPMENT TO SUPPORT CLOSURE, REGULATORY PATHWAY AND STRATEGY FOR ACHIEVING CLOSURE.	9/30/2024
M-45-06-T01	SUBMIT TANK CLOSURE/POST-CLOSURE PLAN FOR SELECTED CLOSURE DEMONSTRATION OPERABLE UNIT OR TANK FARM TO ECOLOGY FOR APPROVAL.	11/30/2004
M-45-06-T02	ECOLOGY WILL ISSUE FINAL CLOSURE/POST CLOSURE PLAN FOR SELECTED CLOSURE DEMONSTRATION OPERABLE UNIT OR TANK FARM.	9/30/2006
M-45-06-T03	INITIATE CLOSURE ACTIONS ON AN OPERABLE UNIT OR TANK FARM BASIS. CLOSURE SHALL FOLLOW COMPLETION OF THE RETRIEVAL ACTIONS UNDER PROPOSED MILESTONE M-45-05. CLOSURE WILL BE DEFINED IN AN APPROVED CLOSURE PLAN FOR THE DEMONSTRATION FARM. FINAL CLOSURE IS DEFINED AS REGULATORY APPROVAL OF COMPLETION OF CLOSURE ACTIONS.	3/31/2012
M-45-06-T04	COMPLETE CLOSURE ACTIONS ON ONE OPERABLE UNIT OR TANK FARM.	3/31/2014
M-45-08	ESTABLISH FULL SCALE CAPABILITY FOR MITIGATION OF WASTE TANK LEAKAGE DURING RETRIEVAL SLUICING OPERATIONS.	6/30/2003

Table D. Major and Interim Milestones

Number	Milestone	<u>Due Date</u>
M-45-08-T02	ESTABLISH THE CRITERIA THROUGH STAKEHOLDER PARTICIPATION AND ECOLOGY APPROVAL FOR: (1) DETERMINING ALLOWABLE LEAKAGE VOLUMES, AND (2) ACCEPTABLE LEAK MONITORING/DETECTION AND MITIGATION MEASURES NECESSARY TO PERMIT SLUICING OPERATIONS.	4/30/1997
	CONSISTENT WITH AUTHORITIES GRANTED BY EPA TO THE STATE UNDER ITS DELEGATED HAZARDOUS WASTE MANAGEMENT PROGRAM, ECOLOGY WILL HAVE FINAL AUTHORITY IN DETERMINING ACCEPTABLE CRITERIA FOR THIS TARGET ACTIVITY.	
M-45-08A	COMPLETE SYSTEM DESIGN AND OPERATING STRATEGY FOR TANK LEAK MONITORING AND MITIGATION FOR SYSTEMS TO BE USED IN CONJUNCTION WITH INITIAL RETRIEVAL SYSTEMS FOR SSTs.	12/31/2000
M-45-08B	COMPLETE DEMONSTRATION AND INSTALLATION OF LEAK MONITORING AND MITIGATION SYSTEMS FOR INITIAL SST RETRIEVAL.	6/30/2003
M-45-09A	SUBMIT ANNUAL PROGRESS REPORTS ON THE DEVELOPMENT OF WASTE TANK LEAK MONITORING/DETECTION AND MITIGATION ACTIVITIES IN SUPPORT OF M-45-08.	9/30/1996
	REPORTS WILL PROVIDE A DESCRIPTION OF WORK ACCOMPLISHED UNDER M-45-08, TECHNOLOGIES, APPLICATIONS, COST, SCHEDULE, AND TECHNICAL DATA. REPORTS WILL ALSO EVALUATE DEMONSTRATIONS PERFORMED BY DOE AND PRIVATE INDUSTRY FOR APPLICABILITY TO SST RETRIEVAL AND PROVIDE RECOMMENDATIONS FOR FURTHER TESTING FOR USE IN RETRIEVAL OPERATIONS.	
M-45-09B	SUBMIT ANNUAL PROGRESS REPORTS ON THE DEVELOPMENT OF WASTE TANK LEAK MONITORING/DETECTION AND MITIGATION ACTIVITIES IN SUPPORT OF M-45-08.	9/30/1997
	REPORTS WILL PROVIDE A DESCRIPTION OF WORK ACCOMPLISHED UNDER M-45-08, TECHNOLOGIES, APPLICATIONS, COST, SCHEDULE, AND TECHNICAL DATA. REPORTS WILL ALSO EVALUATE DEMONSTRATIONS PERFORMED BY DOE AND PRIVATE INDUSTRY FOR APPLICABILITY TO SST RETRIEVAL AND PROVIDE RECOMMENDATIONS FOR FURTHER TESTING FOR USE IN RETRIEVAL OPERATIONS.	

Number	<u>Milestone</u>	<u>Due Date</u>
M-45-09C	SUBMIT ANNUAL PROGRESS REPORTS ON THE DEVELOPMENT OF WASTE TANK LEAK MONITORING/DETECTION AND MITIGATION ACTIVITIES IN SUPPORT OF M-45-08.	9/30/1998
	REPORTS WILL PROVIDE A DESCRIPTION OF WORK ACCOMPLISHED UNDER M-45-08, TECHNOLOGIES, APPLICATIONS, COST, SCHEDULE, AND TECHNICAL DATA. REPORTS WILL ALSO EVALUATE DEMONSTRATIONS PERFORMED BY DOE AND PRIVATE INDUSTRY FOR APPLICABILITY TO SST RETRIEVAL AND PROVIDE RECOMMENDATIONS FOR FURTHER TESTING FOR USE IN RETRIEVAL OPERATIONS.	
M-45-09D	SUBMIT ANNUAL PROGRESS REPORTS ON THE DEVELOPMENT OF WASTE TANK LEAK MONITORING/DETECTION AND MITIGATION ACTIVITIES IN SUPPORT OF M-45-08.	9/30/1999
	REPORTS WILL PROVIDE A DESCRIPTION OF WORK ACCOMPLISHED UNDER M-45-08, TECHNOLOGIES, APPLICATIONS, COST, SCHEDULE, AND TECHNICAL DATA. REPORTS WILL ALSO EVALUATE DEMONSTRATIONS PERFORMED BY DOE AND PRIVATE INDUSTRY FOR APPLICABILITY TO SST RETRIEVAL AND PROVIDE RECOMMENDATIONS FOR FURTHER TESTING FOR USE IN RETRIEVAL OPERATIONS.	
M-45-09E	SUBMIT ANNUAL PROGRESS REPORTS ON THE DEVELOPMENT OF WASTE TANK LEAK MONITORING/DETECTION AND MITIGATION ACTIVITIES IN SUPPORT OF M-45-08.	9/30/2000
	REPORTS WILL PROVIDE A DESCRIPTION OF WORK ACCOMPLISHED UNDER M-45-08, TECHNOLOGIES, APPLICATIONS, COST, SCHEDULE, AND TECHNICAL DATA. REPORTS WILL ALSO EVALUATE DEMONSTRATIONS PERFORMED BY DOE AND PRIVATE INDUSTRY FOR APPLICABILITY TO SST RETRIEVAL AND PROVIDE RECOMMENDATIONS FOR FURTHER TESTING FOR USE IN RETRIEVAL OPERATIONS.	
M-45-09F	SUBMIT ANNUAL PROGRESS REPORTS ON THE DEVELOPMENT OF WASTE TANK LEAK MONITORING/DETECTION AND MITIGATION ACTIVITIES IN SUPPORT OF M-45-08.	9/30/2001
	REPORTS WILL PROVIDE A DESCRIPTION OF WORK ACCOMPLISHED UNDER M-45-08, TECHNOLOGIES, APPLICATIONS, COST, SCHEDULE, AND TECHNICAL DATA. REPORTS WILL ALSO EVALUATE DEMONSTRATIONS PERFORMED BY DOE AND PRIVATE INDUSTRY FOR APPLICABILITY TO SST RETRIEVAL AND PROVIDE RECOMMENDATIONS FOR FURTHER TESTING FOR USE IN RETRIEVAL OPERATIONS.	

Table D. Major and Interim Milestones

Number	Milestone	<u>Due Date</u>
M-45-09G	SUBMIT ANNUAL PROGRESS REPORTS ON THE DEVELOPMENT OF WASTE TANK LEAK MONITORING/DETECTION AND MITIGATION ACTIVITIES IN SUPPORT OF M-45-08.	9/30/2002
	REPORTS WILL PROVIDE A DESCRIPTION OF WORK ACCOMPLISHED UNDER M-45-08, TECHNOLOGIES, APPLICATIONS, COST, SCHEDULE, AND TECHNICAL DATA. REPORTS WILL ALSO EVALUATE DEMONSTRATIONS PERFORMED BY DOE AND PRIVATE INDUSTRY FOR APPLICABILITY TO SST RETRIEVAL AND PROVIDE RECOMMENDATIONS FOR FURTHER TESTING FOR USE IN RETRIEVAL OPERATIONS.	
M-45-09H	SUBMIT ANNUAL PROGRESS REPORTS ON THE DEVELOPMENT OF WASTE TANK LEAK MONITORING/DETECTION AND MITIGATION ACTIVITIES IN SUPPORT OF M-45-08.	9/30/2003 and annually thereafter
	REPORTS WILL PROVIDE A DESCRIPTION OF WORK ACCOMPLISHED UNDER M-45-08, TECHNOLOGIES, APPLICATIONS, COST, SCHEDULE, AND TECHNICAL DATA. REPORTS WILL ALSO EVALUATE DEMONSTRATIONS PERFORMED BY DOE AND PRIVATE INDUSTRY FOR APPLICABILITY TO SST RETRIEVAL AND PROVIDE RECOMMENDATIONS FOR FURTHER TESTING FOR USE IN RETRIEVAL OPERATIONS.	
M-46-00C	DOUBLE-SHELL TANK SPACE EVALUATION.	9/30/1996
LEAD AGENCY: ECOLOGY	THIS NEW MILESTONE REPLACES EXISTING MILESTONE M-31-02. A TANK VOLUME PROJECTION REPORT SHALL BE SUBMITTED ON AN ANNUAL BASIS TO ECOLOGY AND EPA. THIS REPORT SHALL INCLUDE DISCUSSIONS COVERING ALL ASSUMPTION WHICH FORM THE BASIS OF THE PROJECTION. THE REPORT SHALL INCLUDE OR SHALL BE ACCOMPANIED BY DOE'S PLANS FOR ACQUISITION OF ADDITIONAL TANKS BASED ON THE TANK VOLUME PROJECTION.	
M-46-00D	DOUBLE-SHELL TANK SPACE EVALUATION.	9/30/1997
LEAD AGENCY: ECOLOGY	THIS NEW MILESTONE REPLACES EXISTING MILESTONE M-31-02. A TANK VOLUME PROJECTION REPORT SHALL BE SUBMITTED ON AN ANNUAL BASIS TO ECOLOGY AND EPA. THIS REPORT SHALL INCLUDE DISCUSSIONS COVERING ALL ASSUMPTION WHICH FORM THE BASIS OF THE PROJECTION. THE REPORT SHALL INCLUDE OR SHALL BE ACCOMPANIED BY DOE'S PLANS FOR ACQUISITION OF ADDITIONAL TANKS BASED ON THE TANK VOLUME PROJECTION.	

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Number	Milestone	<u>Due Date</u>
M-46-00E	DOUBLE-SHELL TANK SPACE EVALUATION.	9/30/1998
LEAD AGENCY: ECOLOGY	THIS NEW MILESTONE REPLACES EXISTING MILESTONE M-31-02. A TANK VOLUME PROJECTION REPORT SHALL BE SUBMITTED ON AN ANNUAL BASIS TO ECOLOGY AND EPA. THIS REPORT SHALL INCLUDE DISCUSSIONS COVERING ALL ASSUMPTION WHICH FORM THE BASIS OF THE PROJECTION. THE REPORT SHALL INCLUDE OR SHALL BE ACCOMPANIED BY DOE'S PLANS FOR ACQUISITION OF ADDITIONAL TANKS BASED ON THE TANK VOLUME PROJECTION.	
M-46-00F	DOUBLE-SHELL TANK SPACE EVALUATION	9/30/1999
LEAD AGENCY: ECOLOGY	THIS NEW MILESTONE REPLACES EXISTING MILESTONE M-31-02. A TANK VOLUME PROJECTION REPORT SHALL BE SUBMITTED ON AN ANNUAL BASIS TO ECOLOGY AND EPA. THIS REPORT SHALL INCLUDE DISCUSSIONS COVERING ALL ASSUMPTION WHICH FORM THE BASIS OF THE PROJECTION. THE REPORT SHALL INCLUDE OR SHALL BE ACCOMPANIED BY DOE'S PLANS FOR ACQUISITION OF ADDITIONAL TANKS BASED ON THE TANK VOLUME PROJECTION.	
M-46-00G	DOUBLE-SHELL TANK SPACE EVALUATION.	9/30/2000 and annually
LEAD AGENCY: ECOLOGY	THIS NEW MILESTONE REPLACES EXISTING MILESTONE M-31-02. A TANK VOLUME PROJECTION REPORT SHALL BE SUBMITTED ON AN ANNUAL BASIS TO ECOLOGY AND EPA. THIS REPORT SHALL INCLUDE DISCUSSIONS COVERING ALL ASSUMPTION WHICH FORM THE BASIS OF THE PROJECTION. THE REPORT SHALL INCLUDE OR SHALL BE ACCOMPANIED BY DOE'S PLANS FOR ACQUISITION OF ADDITIONAL TANKS BASED ON THE TANK VOLUME PROJECTION.	thereafter
M-46-01C	CONCURRENCE OF ADDITIONAL TANK ACQUISITION. THIS IS A NEW INTERIM MILESTONE. THE THREE PARTIES SHALL MEET TO ESTABLISH NEW MILESTONES, IF REQUIRED, FOR ACQUISITION OF ADDITIONAL TANKS.	11/30/1996
M-46-01D	CONCURRENCE OF ADDITIONAL TANK ACQUISITION. THIS IS A NEW INTERIM MILESTONE. THE THREE PARTIES SHALL MEET TO ESTABLISH NEW MILESTONES, IF REQUIRED, FOR ACQUISITION OF ADDITIONAL TANKS.	11/30/1997
M-46-01E	CONCURRENCE OF ADDITIONAL TANK ACQUISITION. THIS IS A NEW INTERIM MILESTONE. THE THREE PARTIES SHALL MEET TO ESTABLISH NEW MILESTONES, IF REQUIRED, FOR ACQUISITION OF ADDITIONAL TANKS.	11/30/1998
M-46-01F	CONCURRENCE OF ADDITIONAL TANK ACQUISITION. THIS IS A NEW INTERIM MILESTONE. THE THREE PARTIES SHALL MEET TO ESTABLISH NEW MILESTONES, IF REQUIRED, FOR ACQUISITION OF ADDITIONAL TANKS.	11/30/1999 and annually thereafter

Table D. Major and Interim Milestones

Number	Milestone	<u>Due Date</u>
M-50-00	COMPLETE PRETREATMENT PROCESSING OF HANFORD TANK WASTE	12/31/2028
LEAD AGENCY: ECOLOGY		
M-50-01	START CONSTRUCTION OF LLW PRETREATMENT FACILITY.	11/30/1998
M-50-01-T02	SUBMIT CONCEPTUAL DESIGN AND INITIATE DEFINITIVE DESIGN OF LLW PRETREATMENT FACILITY.	12/31/1996
M-50-02	START HOT OPERATIONS OF LLW PRETREATMENT FACILITY TO REMOVE CESIUM AND STRONTIUM.	12/31/2004
M-50-02-T01	COMPLETE CONSTRUCTION OF LLW PRETREATMENT FACILITY.	12/31/2003
M-50-03	COMPLETE EVALUATION OF ENHANCED SLUDGE WASHING TO DETERMINE WHETHER ADVANCED SLUDGE SEPARATION PROCESSES ARE REQUIRED.	3/31/1998
	THE PERFORMANCE OF SLUDGE WASHING AND RELATED TANK WASTE SLUDGE PRETREATMENT METHODS WILL BE EVALUATED TO DETERMINE IF THESE PROCESSES WILL BE CAPABLE OF SATISFYING CRITERIA WHICH WILL BE ESTABLISHED BY THE THREE PARTIES PRIOR TO THE MILESTONE DATE. THE CRITERIA WILL INCLUDE SUCH ITEMS AS VOLUME OF HLW RESULTING FROM PRETREATMENT, COMPATIBILITY WITH HLW AND LLW TREATMENT PROCESSES, AND PROCESSING RATES. FOR EXAMPLE, SLUDGE WASHING AND ENHANCED SLUDGE WASHING MUST RESULT IN THE PRODUCTION OF A "REASONABLE" VOLUME OF HLW REQUIRING REPOSITORY DISPOSAL SUCH THAT OTHER ESTABLISHED SLUDGE TREATMENT PROCESSES WILL NOT RESULT IN OVERALL COST SAVINGS OR SCHEDULE IMPROVEMENTS. IF THE PREDICTED PERFORMANCE DOES NOT MEET THE CRITERIA, THE NEED FOR MORE ADVANCED SLUDGE SEPARATIONS PROCESSES WILL BE RE-EXAMINED AND CHANGES TO THE HLW PROGRAM WILL BE PROPOSED ACCORDINGLY. KEY ELEMENTS OF THIS EVALUATION INCLUDE:	
	- PRETREATMENT PROCESS TESTING WILL USE ACTUAL TANK WASTE. THESE TANKS WILL BE CHOSEN TO REPRESENT THE EXPECTED RANGE OF SLUDGE COMPOSITION. CANDIDATE PROCESSES ARE THOSE, SUCH AS WATER WASHING, CAUSTIC WASHING, AND SELECTIVE LEACHING, WHICH DO NOT REQUIRE COMPLEX PROCESSING SYSTEMS AND WHICH CAN BE IMPLEMENTED WITHIN TANKS OR RELATIVELY SIMPLE FACILITIES.	
	- DEVELOP CANDIDATE TANK TREATMENT AND BLENDING SEQUENCES TO MINIMIZE THE VOLUME OF IMMOBILIZED HLW.	
	- MODEL SYSTEMS PERFORMANCE TO PREDICT THE VOLUMES OF IMMOBILIZED HLW PRODUCED AND PROCESSING RATES FOR CANDIDATE PRETREATMENT PROCESSES.	
	-ASSESS THE UNCERTAINTIES RELATED TO THE HLW VOLUME PREDICTIONS.	

Table D. Major and Interim Milestones

Number	Milestone	<u>Due Date</u>
M-50-03-T2B	SUBMIT A REPORT SUMMARIZING THE TESTING OF ENHANCED SLUDGE WASHING AND RELATED TANK WASTE SLUDGE PRETREATMENT METHODS FOR SAMPLES OF TANK WASTE SLUDGE.	9/30/1996
	PERFORM TESTING OF ENHANCED SLUDGE WASHING AND RELATED TANK WASTE SLUDGE PRETREATMENT METHODS USING ACTUAL TANK WASTE SAMPLES. DOCUMENT AND ISSUE RESULTS OF TESTING COMPLETED TO THAT TIME.	
	THIS ANNUAL REPORT WILL ALSO DOCUMENT PRELIMINARY CANDIDATE TANK WASTE PRETREATMENT AND PRELIMINARY IMMOBILIZATION SEQUENCES AND TANK BLENDING STRATEGIES. GOALS FOR BOTH EARLY PROGRESS ON WASTE IMMOBILIZATION AND MINIMIZATION OF THE PRODUCTION OF HIGH LEVEL GLASS WILL BE ADDRESSED IN THESE STRATEGIES. THESE PRELIMINARY STRATEGIES WILL BE UTILIZED TO PREDICT THE PRODUCTION OF HIGH LEVEL WASTE GLASS ASSOCIATED WITH CANDIDATE ENHANCED SLUDGE WASHINGS AND RELATED TANK WASTE SLUDGE PRETREATMENT METHODS. THE PREDICTION OF THE HLW GLASS VOLUME PRODUCTION WILL BE UPDATED.	
M-50-03-T2C	SUBMIT A REPORT SUMMARIZING THE TESTING OF ENHANCED SLUDGE WASHING AND RELATED TANK WASTE SLUDGE PRETREATMENT METHODS FOR SAMPLES OF TANK WASTE SLUDGE.	9/30/1997
	PERFORM TESTING OF ENHANCED SLUDGE WASHING AND RELATED TANK WASTE SLUDGE PRETREATMENT METHODS USING ACTUAL TANK WASTE SAMPLES. DOCUMENT AND ISSUE RESULTS OF TESTING COMPLETED TO THAT TIME.	
	THIS ANNUAL REPORT WILL ALSO DOCUMENT PRELIMINARY CANDIDATE TANK WASTE PRETREATMENT AND PRELIMINARY IMMOBILIZATION SEQUENCES AND TANK BLENDING STRATEGIES. GOALS FOR BOTH EARLY PROGRESS ON WASTE IMMOBILIZATION AND MINIMIZATION OF THE PRODUCTION OF HIGH LEVEL GLASS WILL BE ADDRESSED IN THESE STRATEGIES. THESE PRELIMINARY STRATEGIES WILL BE UTILIZED TO PREDICT THE PRODUCTION OF HIGH LEVEL WASTE GLASS ASSOCIATED WITH CANDIDATE ENHANCED SLUDGE WASHINGS AND RELATED TANK WASTE SLUDGE PRETREATMENT METHODS. THE PREDICTION OF THE HLW GLASS VOLUME PRODUCTION WILL BE UPDATED.	
M-50-04	START HOT OPERATIONS OF HLW PRETREATMENT FACILITY.	6/30/2008
M-50-04-T01	SUBMIT CONCEPTUAL DESIGN OF HLW PRETREATMEINT FACILITY	3/31/1998
M-50-04-T02	INITIATE DEFINITIVE DESIGN OF HLW PRETREATMENT FACILITY.	11/30/1998
M-50-04-T03	START CONSTRUCTION OF HLW PRETREATMENT FACILITY.	6/30/2001

Table D. Major and Interim Milestones

Number	Milestone	Due Date
M-51-00 LEAD AGENCY: ECOLOGY	COMPLETE VITRIFICATION OF HANFORD HIGH LEVEL TANK WASTE.	12/31/2028
M-51-02	COMPLETE MELTER TESTS AND SELECT REFERENCE MELTER.	9/30/1998
	THIS MILESTONE WILL PROVIDE CONFIRMATION THAT MELTER DEVELOPMENT HAS SUCCESSFULLY PRODUCED A MELTER COMPATIBLE WITH THE SLUDGE PRETREATMENT TECHNOLOGY TO BE DEPLOYED (SEE MILESTONE M-51-03) AND WILL COMPLETE PROCESSING IN THE REQUIRED TIMEFRAME.	
M-51-03	INITIATE HOT OPERATIONS OF THE HLW VITRIFICATION FACILITY	12/31/2009
M-51-03-T01	SUBMIT CONCEPTUAL DESIGN (TO INCLUDE SELECTED CAPACITY AND PROCESS) OF HLW VITRIFICATION FACILITY.	9/30/1998
M-51-03-T02	INITIATE DEFINITIVE DESIGN OF THE HLW VITRIFICATION FACILITY.	12/31/1998
M-51-03-T03	INITIATE CONSTRUCTION OF THE HLW VITRIFICATION FACILITY	6/30/2002
M-51-03-T04	COMPLETE CONSTRUCTION OF THE HLW VITRIFICATION FACILITY	12/31/2007
M-60-00	COMPLETE VITRIFICATION OF HANFORD LOW LEVEL TANK WASTE.	12/31/2028
LEAD AGENCY: ECOLOGY		
M-60-03	SUBMIT CONCEPTUAL DESIGN AND INITIATE DEFINITIVE DESIGN OF THE LLW VITRIFICATION FACILITY.	11/30/1996
1-60-04	INITIATE CONSTRUCTION OF THE LLW VITRIFICATION FACILITY.	12/31/1997
M-60-05	INITIATE HOT OPERATIONS OF THE LLW VITRIFICATION FACILITY.	6/30/2005
M-60-05-T01	COMPLETE CONSTRUCTION OF THE LLW VITRIFICATION FACILITY.	12/31/2003
1-70-00 LEAD AGENCY:	THE ERDF WILL BE-OPERATIONAL (AVAILABLE TO RECEIVE REMEDIATION WASTE) ON SEPTEMBER, 1996.	9/30/1996

Table D. Major and Interim Milestones

Number	Milestone	<u>Due Date</u>
M-80-00	COMPLETE PUREX AND UO3 PLANT FACILITY TRANSITION PHASE AND INITIATE THE SURVEILLANCE AND MAINTENANCE PHASE.	7/31/1998
LEAD AGENCY: ECOLOGY	COMPLETION OF THIS MAJOR MILESTONE INCLUDES THE FOLLOWING KEY ELEMENTS: (1) COMPLETION OF ALL ACTIVITIES NECESSARY TO ACHIEVE END POINT CRITERIA FOR PLACING THE PUREX/UO3 FACILITIES IN A SAFE AND STABLE S&M MODE, AND (2) COMPLETION OF ALL ACTIVITIES DESCRIBED IN THE FOLLOWING INTERIM MILESTONES AND TARGET ACTIONS.	
M-80-00-T06	COMPLETE DEACTIVATION OF THE PUREX PLANT 211-A AREA.	4/30/1997
	DEACTIVATION OF THE 211-A AREA INCLUDES, BUT IS NOT LIMITED TO, REMOVING THE CHEMICAL INVENTORY, FLUSHING TANKS, REMOVING TANK HEELS, DISPOSING OF RESINS CONTAINED WITHIN ISOLATED DEMINERALIZERS, ISOLATING UTILITIES, AND DECONTAMINATING/STABILIZING SURFACES CONTAMINATED WITH HAZARDOUS MATERIALS, AS NECESSARY. THIS TARGET DATE DOES NOT INCLUDE TANK-40 (SEE M-80-00-T03).	
M-80-00-T07	COMPLETE DEACTIVATION OF THE PUREX PLANT SAMPLE GALLERY.	6/30/1997
	DEACTIVATION OF THE SAMPLE GALLERY INCLUDES, BUT IS NOT LIMITED TO, FLUSHING HEADERS AND HIGH RADIATION SAMPLERS THAT MAY POSE A CONTAMINATION OR DOSE PROBLEM, DECONTAMINATING AND/OR STABILIZING HOODS CONTAINING SIGNIFICANT QUANTITIES OF SPECIAL NUCLEAR MATERIAL, AND DECONTAMINATING/STABILIZING AND/OR REMOVING HOOD DUCT WORK.	
M-80-02	SUBMIT THE END POINT CRITERIA AND SURVEILLANCE AND MAINTENANCE PLAN IN SUPPORT OF THE PUREX PRECLOSURE WORK PLAN.	7/31/1996
	THE PUREX PRECLOSURE WORK PLAN SUBMITTAL IS COVERED UNDER INTERIM MILESTONE M-20-24A.	
M-80-02-T02	SUBMIT PUREX SURVEILLANCE AND MAINTENANCE PLAN.	5/31/1996
	A PLAN, INCLUDING A LIST OF HAZARDOUS SUBSTANCES/DANGEROUS WASTES WHICH ARE PLANNED TO REMAIN AT THE PUREX FACILITY FOLLOWING TRANSITION AND THE S&M ACTIVITIES TO OCCUR AFTER TRANSITION AND PRIOR TO INITIATING FINAL FACILITY DISPOSITION ACTIVITIES, WILL BE PROVIDED TO ECOLOGY AND EPA FOR THEIR REVIEW AND APPROVAL AS A PART OF THE PRECLOSURE WORK PLAN FOR TSD UNITS, AND FOR HAZARDOUS SUBSTANCES PROPOSED TO REMAIN AT THE PUREX FACILITY.	

Table D. Major and Interim Milestones

Number	Milestone	<u>Due Date</u>
M-80-04	COMPLETE DEACTIVATION OF THE PUREX PLANT U-CELL/FRACTIONATOR.	4/30/1997
	DEACTIVATION OF THE U-CELL/FRACTIONATOR INCLUDES, BUT IS NOT LIMITED TO, REMOVING RECOVERED NITRIC ACID, FLUSHING VESSELS, AND SEALING U CELL COVER BLOCKS.	
M-80-05	COMPLETE DEACTIVATION OF THE PUREX PLANT AQUEOUS MAKEUP AREA.	6/30/1997
	DEACTIVATION OF THE AQUEOUS MAKEUP AREA INCLUDES, BUT IS NOT LIMITED TO, REMOVING THE CHEMICAL INVENTORY AND FLUSHING OR EMPTYING TANKS AND SUPPLY HEADERS TO CANYON VESSELS.	
M-80-06	COMPLETE DEACTIVATION OF THE PUREX PLANT CANYON.	7/31/1997
	DEACTIVATION OF THE PUREX CANYON INCLUDES, BUT IS NOT LIMITED TO, ISOLATING CANYON PIPING TO EXTERNAL FACILITY INTERFACES (E.G., TANK FARMS, 216-B-3 POND, CRIBS, ETC.), REMOVING SPENT REACTOR FUEL, AND EMPTYING AND FLUSHING OF PROCESS VESSELS. THE FLUSH SOLUTIONS FROM FINAL FLUSHING ACTIVITIES WILL BE SAMPLED TO VERIFY THAT THEY DO NOT DESIGNATE AS DANGEROUS WASTE. SAMPLING AND ANALYSIS OF THE FINAL FLUSH SOLUTIONS WILL BE PERFORMED IN ACCORDANCE WITH THE DATA QUALITY OBJECTIVES APPROVED IN PERTINENT PART BY ECOLOGY.	
M-80-07	COMPLETE DEACTIVATION OF THE PUREX PLANT 203-A AREA.	4/30/1998
	DEACTIVATION OF THE 203-A AREA INCLUDES, BUT IS NOT LIMITED TO, EMPTYING AND FLUSHING TANK SYSTEMS, AND DECONTAMINATING/STABILIZING CONTAMINATED SURFACES, AS NECESSARY.	
M-80-08	DOCUMENT HAZARDOUS SUBSTANCES/DANGEROUS WASTES REMAINING WITHIN THE PUREX PLANT.	7/31/1998
	HAZARDOUS SUBSTANCES/DANGEROUS WASTES WILL REMAIN WITHIN THE PUREX PLANT UPON COMPLETION OF PHASE I ACTIVITIES. HAZARDOUS SUBSTANCES INCLUDE, BUT ARE NOT LIMITED TO: (1) NON DANGEROUS WASTE COMPONENTS THAT ARE HIGHLY RADIOACTIVE, (2) PART OF THE PLANT STRUCTURE (E.G., LEAD SHIELDING IN WALLS), AND (3) INTACT PIECES OF EQUIPMENT (E.G., SILVER REACTORS AND CADMIUM MODERATORS). THE LIST PREPARED IN MILESTONE M-80-02-TO2 WILL BE UPDATED TO INCLUDE ANY MATERIALS IDENTIFIED DURING DEACTIVATION ACTIVITIES NOT IDENTIFIED IN THE INITIAL SUBMITTAL.	

Number	<u>Milestone</u>	Due Date
M-81-00	COMPLETE FFTF FACILITY TRANSITION AND INITIATE THE SURVEILLANCE AND MAINTENANCE PHASE.	12/31/2001
LEAD AGENCY: ECOLOGY	THIS MAJOR MILESTONE WILL BE ACHIEVED BY COMPLETION OF ALL ACTIVITIES NECESSARY TO ACHIEVE THE END POINT CRITERIA FOR PLACING THE FACILITY IN A SAFE AND STABLE SURVEILLANCE AND MAINTENANCE MODE.	
M-81-00-T02	COMPLETE TRANSFER OF IRRADIATED FUEL TO DRY CASK STORAGE.	10/31/1998
	THE IRRADIATED FUEL ASSEMBLIES AND PIN CONTAINERS WILL BE TRANSFERRED FROM THE INTERIM DECAY STORAGE VESSEL AND THE FUEL STORAGE FACILITY TO THE IEM CELL FOR RESIDUAL SODIUM REMOVAL, LOADED INTO A CORE COMPONENT CONTAINER, TRANSFERRED TO THE REACTOR SERVICE BUILDING CASK LOADING STATION FOR PLACEMENT INTO AN INTERIM STORAGE CASK FOR DRY STORAGE, AND TRANSFERRED TO THE INTERIM STORAGE AREA LOCATED IN THE NORTHEAST CORNER OF THE FFTF COMPLEX.	
M-81-00-T03	COMPLETE TRANSFER OF UNIRRADIATED FUEL TO THE PLUTONIUM FINISHING PLANT.	10/31/1998
	THIRTY TWO UNIRRADIATED FUEL ASSEMBLIES PRESENTLY STORED IN THE INTERIM DECAY STORAGE VESSEL WILL BE TRANSFERRED TO THE IEM CELL FOR WASHING AND DRYING, LOADED INTO EXISTING APPROVED SHIPPING CONTAINERS, AND TRANSFERRED TO AN APPROPRIATE STORAGE AREA IN THE PLUTONIUM FINISHING PLANT.	
M-81-00-T04	COMPLETE TRANSFER OF SPECIAL FUEL TO THE IDAHO NATIONAL ENGINEERING LABORATORY FOR CONSOLIDATED STORAGE.	10/31/1998
	SODIUM-BONDED IRRADIATED METAL AND CARBIDE FUEL PINS FROM ASSEMBLIES CLEANED AND DISASSEMBLED IN THE IEM CELL WILL BE LOADED INTO EXISTING, APPROVED SHIPPING CASKS, AND TRANSPORTED TO THE IDAHO NATIONAL ENGINEERING LABORATORY IN IDAHO FALLS, IDAHO, FOR CONSOLIDATED STORAGE. ONE UNIRRADIATED METAL FUEL ASSEMBLY WILL ALSO BE DISPOSITIONED IN A SIMILAR MANNER.	
M-81-00-T05	COMPLETE AUXILIARY SYSTEMS DEACTIVATION.	3/31/2001
	A MAJOR PORTION OF THE PLANT AUXILIARY SYSTEMS ARE REQUIRED TO SUPPORT HOT SODIUM CIRCULATION PRIOR TO DRAINING THE SODIUM. AS THESE SYSTEMS, AND THE BALANCE OF PLANT SYSTEMS, BECOME AVAILABLE FOR SHUTDOWN, THEY WILL BE DEACTIVATED TO A SAFE, STABLE CONDITION.	

Table D. Major and Interim Milestones

Number	Milestone	Due Date
M-81-02	COMPLETE SODIUM STORAGE FACILITY STARTUP.	7/31/1998
	THIS MILESTONE WILL BE ACHIEVED BY COMPLETION OF THE SODIUM STORAGE FACILITY STARTUP ACTIVITIES WHICH INCLUDE FINAL TESTING OF THE MECHANICAL AND ELECTRICAL SYSTEMS AND CONFIRMATION THAT THE FACILITY IS READY TO RECEIVE SODIUM FROM FFTF. CONSTRUCTION OF THE NEW FACILITY CLOSELY COUPLED TO THE FFTF COMPLEX IS REQUIRED TO SUPPORT SODIUM DRAIN OPERATIONS. THIS NEW FACILITY WILL BE DESIGNED, CONSTRUCTED AND OPERATED IN COMPLIANCE WITH RCRA AND WAC 173-303 STORAGE REQUIREMENTS. THE FACILITY WILL PROVIDE STORAGE CAPACITY FOR THE 260,000 GALLONS OF FFTF METALLIC SODIUM COOLANT.	
M-81-02-T01	SUBMIT SODIUM DISPOSITION EVALUATION REPORT/DECISION POINT.	6/30/1998
	COMPLETE AN EVALUATION OF THE ACCEPTABLE SODIUM PRODUCT FORM FOR THE TWRS TANK SLUDGE PRETREATMENT PROCESS (I.E., CAUSTIC WASHING). THIS EVALUATION WILL BE CONDUCTED IN CONCERT WITH TWRS TPA MILESTONE M-50-03 (DUE DATE MARCH 31, 1998). THE FFTF EVALUATION WILL ADDRESS OTHER CONVERSION OPTIONS FOR DISPOSAL OF THE SODIUM IF THE PRODUCT USE FOR TWRS IS NOT VIABLE. REGARDLESS OF WHICH OPTION IS SELECTED, A NEW SODIUM REACTION FACILITY WILL BE CONSTRUCTED ADJACENT TO THE SODIUM STORAGE FACILITY TO CONVERT THE BULK METALLIC SODIUM TO THE APPROPRIATE CHEMICAL FORM. THIS INCLUDES A DECISION ON THE FINAL DISPOSITION OF THE SODIUM (E.G., DISPOSAL OR REUSE). APPROPRIATE MILESTONES AND TARGET DATES WILL BE ESTABLISHED FOR CONSTRUCTION AND OPERATION OF THE SODIUM REACTION FACILITY BASED ON THE OPTION SELECTED.	
M-81-03	SUBMIT FFTF END POINT CRITERIA DOCUMENT.	12/31/1998
	A DOCUMENT IDENTIFYING THE END POINT CRITERIA NECESSARY TO PLACE THE FFTF IN A SAFE AND STABLE CONFIGURATION WILL BE DEVELOPED. THIS DOCUMENT WILL BE PROVIDED TO EPA AND ECOLOGY FOR REVIEW, AND APPROVAL FOR THE HAZARDOUS SUBSTANCES PROPOSED TO REMAIN AT THE FACILITY.	

Table D. Major and Interim Milestones

Number	<u>Milestone</u>	<u>Due Date</u>
M-81-04	COMPLETE FFTF SODIUM DRAIN.	3/31/2000
	THIS MILESTONE WILL BE COMPLETE WHEN ALL OF THE SODIUM COOLANT HAS BEEN DRAINED FROM THE PLANT TO THE NEW SODIUM STORAGE FACILITY TO THE MAXIMUM PRACTICAL EXTENT. THE SODIUM RESIDUALS THAT REMAIN ARE INTEGRAL TO THE SYSTEM, ARE SOLID IN FORM, AND ADHERE TO THE SURFACES OF THE SYSTEM COMPONENTS. THE RESIDUALS WILL BE MAINTAINED UNDER AN INERT GAS BLANKET TO MINIMIZE POTENTIAL REACTIONS DURING THE LONG-TERM SURVEILLANCE AND MAINTENANCE PHASE. DURING FINAL DISPOSITION OF THE FACILITY, ANY REGULATED WASTES GENERATED FROM THE CLEANING OR DISMANTLEMENT OF THESE SYSTEMS, WILL BE APPROPRIATELY MANAGED.	
M-81-04-T01	COMPLETE REACTOR AND HEAT TRANSPORT SYSTEM SODIUM DRAIN.	4/30/1998
	THE REACTOR AND PRIMARY AND SECONDARY HEAT TRANSPORT SYSTEM SODIUM COOLANT AND SUPPORTING SODIUM SYSTEMS WILL BE MAINTAINED IN A SAFE CONFIGURATION, MOLTEN AND CIRCULATING UNTIL THE FUEL IS REMOVED FROM THE FFTF REACTOR VESSEL AND THE SODIUM STORAGE FACILITY IS OPERATIONAL. THE SODIUM WILL THEN BE DRAINED TO THE TANKS LOCATED IN THE SODIUM STORAGE FACILITY AND ALLOWED TO FREEZE.	
M-81-04-T02	COMPLETE INTERIM DECAY STORAGE VESSEL AND FUEL STORAGE FACILITY SODIUM DRAIN.	12/31/1998
	THE INTERIM DECAY STORAGE VESSEL AND FUEL STORAGE FACILITY SODIUM WILL BE MAINTAINED IN A MOLTEN STATE UNTIL THE FUEL IS REMOVED FROM THESE STORAGE LOCATIONS. THE SODIUM WILL THEN BE DRAINED TO THE TANKS LOCATED IN THE SODIUM STORAGE FACILITY AND ALLOWED TO FREEZE.	
M-81-05	SUBMIT FFTF SURVEILLANCE AND MAINTENANCE PLAN.	6/30/2001
	A PLAN DESCRIBING THE S&M ACTIVITIES TO OCCUR AT FFTF DURING THE S&M PHASE WILL BE DEVELOPED. THIS PLAN WILL BE PROVIDED TO EPA AND ECOLOGY FOR REVIEW, AND APPROVAL FOR THE HAZARDOUS SUBSTANCES PROPOSED TO REMAIN AT THE FACILITY. THIS PLAN WILL INCLUDE DOCUMENTATION OF LISTS-OF HAZARDOUS SUBSTANCES, INCLUDING DANGEROUS WASTE THAT REMAIN IN THE FFTF FACILITY UPON COMPLETION OF PHASE I ACTIVITIES BECAUSE THE HAZARDOUS SUBSTANCE: (1) CONTAINS NON-DANGEROUS WASTE COMPONENTS THAT ARE HIGHLY RADIOACTIVE, (2) IS PART OF THE PLANT STRUCTURE AND/OR (3) IS AN INTACT PIECE(S) OF EQUIPMENT.	

Number	Milestone	Due Date
M-81-06	COMPLETE PCB TRANSFORMER DISPOSAL.	9/30/2001
	THE NINETEEN POLYCHLORINATED BIPHENYL (PCB) ELECTRICAL TRANSFORMERS AT THE FFTF WILL BE DISPOSED OF AFTER THE TRANSFORMERS ARE REMOVED FROM SERVICE. TWELVE OF THE NINETEEN TRANSFORMERS, WILL BE DRAINED, FLUSHED AND REMOVED FROM FFTF WITHIN THIRTY DAYS AFTER BEING REMOVED FROM SERVICE AS SPECIFIED IN 40 CFR 761. SEVEN OF THE TRANSFORMERS, WHICH ARE IN AREAS THAT ARE DIFFICULT TO OBTAIN ACCESS, WILL BE DRAINED, FLUSHED AND REMOVED FROM FFTF WITHIN NINE MONTHS OF CESSATION OF SERVICE TO ENSURE THEIR DISPOSAL WITHIN ONE YEAR FROM THE START OF STORAGE. CESSATION OF SERVICE CONSTITUTES THE START OF THE STORAGE, AND 40 CFR 761 LIMITS THIS STORAGE AND SUBSEQUENT DISPOSAL TO A ONE-YEAR PERIOD.	
M-83-00 LEAD AGENCY:	COMPLETE STABILIZATION OF PROCESS AREAS, AND OTHER PFP CLEANOUT ACTIONS RESULTING FROM THE EIS ROD, WITHIN PFP.	TBD
ECOLOGY	COMPLETION OF THE PROCESS AREA STABILIZATION ACTIVITIES WILL ESTABLISH A SAFE AND ENVIRONMENTALLY SECURE CONFIGURATION FOR THESE PLANT AREAS. THE MAJOR RADIOACTIVE AND CHEMICAL SOURCES ASSOCIATED WITH THESE AREAS WILL BE REMOVED, REDUCED, AND/OR STABILIZED. COMPLETION OF STABILIZATION AND OTHER CLEANOUT ACTIVITIES WILL RESULT IN REDUCED RISK TO PLANT WORKERS, THE PUBLIC, AND THE ENVIRONMENT. THIS MILESTONE INCLUDES COMPLETION OF THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) PROCESS.	
	THE THREE PARTIES WILL ENTER INTO NEGOTIATIONS WITHIN TWO MONTHS FOLLOWING ISSUANCE OF THE EIS RECORD OF DECISION TO ESTABLISH MILESTONES FOR IMPLEMENTING THE RECORD OF DECISION AND WILL COMPLETE NEGOTIATIONS WITHIN 6 MONTHS THEREAFTER.	
M-83-01-T01	ISSUE FINAL ENVIRONMENTAL IMPACT STATEMENT RECORD OF DECISION (ROD).	6/30/1996
	THE FINAL ENVIRONMENTAL IMPACT STATEMENT WILL BE COMPLETED AND ALL APPLICABLE NEPA REQUIREMENTS PERFORMED, INCLUDING ISSUANCE OF THE ROD.	
M-83-02	COMPLETE IDENTIFIED INTERIM ACTIONS.	12/31/1998
	THE CURRENTLY IDENTIFIED INTERIM ACTIONS AS LISTED IN THE FOLLOWING TARGET ACTIVITIES WILL BE COMPLETED. ADDITIONAL POTENTIAL INTERIM ACTIONS WILL BE EVALUATED.	

Number	Milestone	<u>Due Date</u>
M-83-02-T04	COMPLETE 234-5Z DUCTWORK CLEANOUT.	12/31/1998
	RESIDUAL PLUTONIUM-BEARING MATERIALS WILL BE REMOVED FROM IDENTIFIED EXHAUST VENTILATION DUCTING (TWO SECTIONS TOTALLING APPROXIMATELY 60 METERS [197 FEET]) AND SELECTED PROCESS VACUUM SYSTEM PIPING (APPROXIMATELY 45 METERS [150 FEET]).	
M-89-00	COMPLETE CLOSURE OF NON-PERMITTED MIXED WASTE UNITS IN THE 324 BUILDING REC B-CELL, REC D-CELL, AND HIGH LEVEL	TBD
LEAD AGENCY: ECOLOGY		
	A DATE WILL BE ESTABLISHED FOR THIS MAJOR MILESTONE IMMEDIATELY FOLLOWING ECOLOGY APPROVAL OF THE REC/HLV CLOSURE PLAN (SEE M-20-55).	
M-89-01	COMPLETE REMOVAL OF 324 BUILDING HLV TANK MW (E.G., TK-104, TK-105, TK-107) WITH THE EXCEPTION OF RESIDUES WHICH MAY REMAIN FOLLOWING FLUSHING AND DRAINING TO THE EXTENT POSSIBLE.	10/31/1996
M-89-02	COMPLETE REMOVAL OF 324 BUILDING REC B-CELL MW AND EQUIPMENT.	5/31/1999
	ACTIONS UNDER THIS MILESTONE INCLUDE CONTAINMENT AND REMOVAL OF ALL B CELL DISPERSIBLE MATERIALS, EXCESS EQUIPMENT AND DEBRIS. CONTAINERIZED MW WILL BE MANAGED IN COMPLIANCE WITH CHAPTER 173.303 WAC, THEREBY REDUCING RISKS TO HUMAN HEALTH AND THE ENVIRONMENT. ANY REMAINING RESIDUES FOLLOWING REMOVAL ACTIONS WILL BE MANAGED THROUGH THE FINAL CLOSURE PROCESS. USDOE'S 324 BUILDING REC B CELL CLEAN-OUT PROJECT (BCCP) WILL BE USED AS A GUIDE FOR CONTAINERIZING DISPERSIBLE MW AND REMOVING UNNECESSARY EQUIPMENT AND MATERIALS FROM B -CELL.	

#### APPENDIX E KEY INDIVIDUALS

	U.S. Environmental Protection Agency Region 10	Washington State Department of Ecology	U.S. Department of Energy, Richland Operations
Executive Managers	Project Manager for the Hanford Project Office (509) 376-9529	Program Manager for the Nuclear Waste Program  (360) 407-7150	Assistant Manager for Waste Management (509) 376-7434 Assistant Manager for the Tank Waste Remediation System (509) 376-7591 Assistant Manager for Environmental Restoration (509) 376-6628 Assistant Manager for Facility Transition (509) 376-7435 Assistant Manager for Technology Management (509) 372-4005 Director, Environmental Assurance, Permits, and Policy (509) 376-5441
	Environmental Protection Agency Region 10 712 Swift Blvd., Suite 5 Richland, WA 99352	Washington Department of Ecology Nuclear Waste Program P.O. Box 47600 Olympia, WA 98504-7600	U.S. Department of Energy Richland Operations Office P.O. Box 550 Richland, WA 99352
Community Relations Contacts	Public Involvement Representative (509) 376-8631	HQ/Public Involvement Unit Supervisor (360) 407-7113	Public Involvement Program Manager (509) 376-9628
	Environmental Protection Agency Region 10 712 Swift Blvd., Suite 5 Richland, WA 99352	Washington Department of Ecology Nuclear Waste Program P.O. Box 47600 Olympia, WA 98504-7600	U.S. Department of Energy Richland Operations Office P.O. Box 550 Richland, WA 99352

Additionally for the latest information concerning the Hanford cleanup you can call toll free: 1 - 800 - 321 - 2008

APPENDIX F

## Supporting Technical Plans and Procedures

Document	Status	
Strategy for Handling and Disposing of Purgewater at the Hanford Site, Washington	WHC-MR-0039 Approved by DOE, EPA Ecology on August 21, 1990	
Data Quality Strategy for Hanford Site Characterization	"Proposed Data Quality Strategy for Hanford Site Characterization, " WHC-SD-EN-AP-023, issued Jan. 19, 1991	
Environmental Investigation and Site Characterization Manual (contains specific procedures governing Site investigation activities)	CM-7-7 Issued, September 1988	
Data Reporting Requirements for the Hanford Site	To be developed	
Guidance on Preparation of Laboratory Quality Assurance Plans	Draft issued	
Data Validation Guidelines for Contract Laboratory Program Organic Analyses	WHC-CM-5-3 issued August 31, 1990	
Data Validation Guidelines for Contract Laboratory Program Inorganic Analyses	WHC-CM-5-3 issued August 31, 1990	

#### APPENDIX G - DATA MANAGEMENT INITIATIVES

September 20, 1993

#### LOCATIONAL DATA COLLECTION STANDARDS

#### Purpose:

Establish standards to be followed by all organizations collecting locational information at the Hanford Site. This will ensure that during the collection of locational information that standards and guidelines will be followed to assure accuracy and usability of the information.

A set of minimum standards for information needs associated with all X, Y, and Z coordinate data (surveyed or GPS) will be defined. Some examples of the ancillary information to be carried include: accuracy; coordinate type; type of collection method used; data collector; and the intended use and application.

#### DATABASE DOCUMENTATION AND LISTING OF EXISTING SYSTEMS UPDATE

#### Purpose:

Undertake a full inventory of existing data management systems, their location, information contained in them, and the source of their information. With the existing and growing databases on the Hanford Site, an effort to understand what computer/automated systems exist on site needs to occur. This task should be assigned to all contractors. Their respective management should assign and require this task to be fulfilled internally.

#### DATA REFERENCE SEARCH INFORMATION SYSTEM

#### Purpose:

Create a system to provide information regarding site characterization historic documents, records, and photography that directly relate to TPA activities.

All resulting information gathered needs to be indexed, referenced, and automated. This will reduce redundant data collection of historic documents on closely associated operable units, and thus save valuable research time and costs.

#### APPENDIX G - DATA MANAGEMENT INITIATIVES

#### EII PROCEDURES UPDATE

#### Purpose:

Disseminate the data and locational standards and guideline to the users in the field. Coordinate EII instructions and data collection to ensure EII's are reviewed and updated to incorporate data management changes, standards, and guidelines for managing information.

#### DIGITAL GIS BASE MAP DATA COLLECTION

#### Purpose:

Provide the necessary base map information to carry out compliance and cleanup activities at the Hanford Site. This milestone will ensure TPA participants an accurate, dependable and controlled set of base map data.

#### SITEWIDE ORTHOPHOTOGRAPHY PROGRAM

#### Purpose:

Establish a comprehensive, usable and long-term site-wide historical record of the Hanford Site. The orthophotography will provide the site with a single up-to-date source for all geographic baseline information from which to obtain automated spatial information.

#### MONUMENT CONTROL NETWORK SYSTEM

#### Purpose:

With the transition from the Hanford Plant Coordinates from the WA State Plane Coordinate system, one, up-to-date official survey monument system needs to be adopted by all contractors and used in all engineering and GPS survey work conducted on site. This will enable a more uniform collection standard, and have assurance that all information collected meets that standard.

#### ENGINEERING SURVEY DATA COLLECTION STANDARDS

#### Purpose:

Develop procedures and guidelines for engineering survey data collection, recording, and storage. At present, engineering surveys are conducted on site without regard to the importance or cost associated with the collection or generation of locational information.

#### APPENDIX G - DATA MANAGEMENT INITIATIVES

#### STANDARD WELL ID/NAMING AND LOCATION COORDINATES

#### Purpose:

Adopt a unique site-wide naming standard for well designations at the Hanford Site. These standards will be maintained and available in an on-line computer system. This system would also function as a cross reference table between existing standards and previous standards, and would also store the official X, Y, and Z coordinate location to be used by all other computer systems.

#### HISTORIC DATA MANAGEMENT

#### Purpose:

Establish a Site historical data management system. As TPA activities develop, a system describing how the site looked, where buildings were located before D&D activities, and where historic waste sites existed will need to be developed.

At present, when buildings are removed from an area, the buildings are also removed from the engineering drawing without regard to its historical or environmental significance. In some cases these same buildings and their footprints are later classified as waste sites. Numerous types of historic information need to be saved, inventoried and tracked:

Photography
CAD Infrastructure Drawings
Written Documents
Borehole Logs